

MAY 1959

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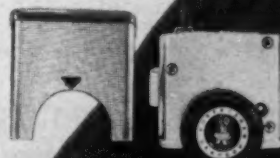
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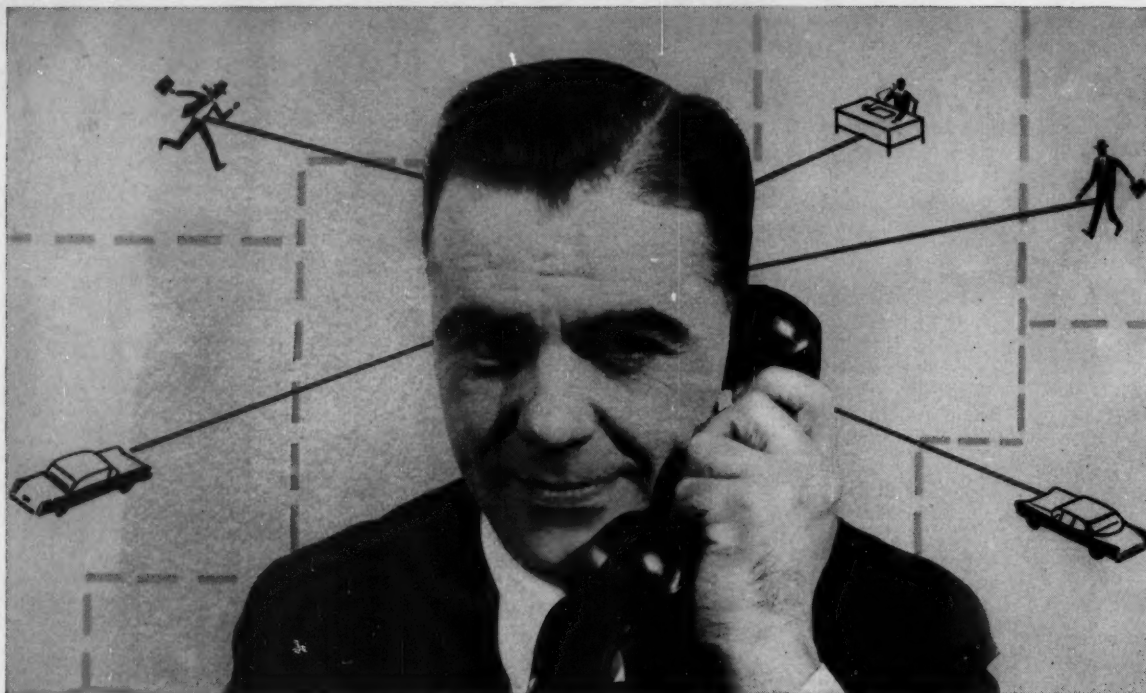


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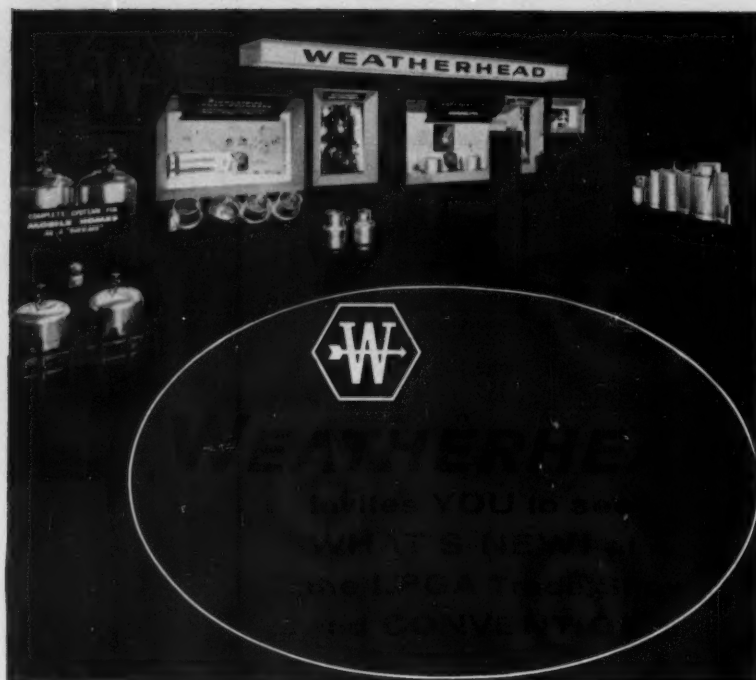


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BUTANE-PROPANE News

behind the scenes **BPN**

"Feedback"

A new word, which has particular meaning for rocketmen, electronics engineers, and communications experts is beginning to creep into the vocabularies of us less technical folk. Advertising men now use it with a knowing offhandedness. So do editors.

The word is "feedback." It's what Perry Como meant when he sang "We get letters." That's the way we use it, too. Feedback is the all-important response we get from readers. It's our best indicator that we're being read, that we make mistakes (you're quick to pick up on those), and that editorially we're headed in the right direction.

So naturally we're pleased to get them, and we do get them—by the scores—every month. But sometimes we hit a particularly responsive chord and the feedback becomes a roar. Such as in January, when we wrote about the new home study courses for servicemen now under preparation. The piece wasn't necessarily intended as a plug for Earle Clifford's courses, but it certainly had that effect. Within the month, we were deluged with requests for more information from readers in New Mexico, Florida, Oklahoma, California, and a lot of other places. We even had an inquiry from Asociacion de Companias do Gas Licuado de Petroleo de Cuba, Havana, about a Spanish version. This led to the preparation of a translation by P. K. Stiles of the association.

The distance prize, however, must go to the article (in the same issue) about Allen Butane Gas Co.'s newspaper, *Alleneews*. One inquiry came from Rhodesia.

We'd like to think these responses illustrate the power of the press. Not so, though. It's the power of *good ideas*. We just pass them along.

WEATHERHEAD

newest of the new
one-piece regulator
gem

cat. 840
175 CFH
(propane)






LP-Giant

Field proven, heavy duty
version of the 551 LP-Gem
regulator

REGULATOR
FOR
High CAPACITY
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REGULATION



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① 'O' ring
type
seal

② positive
diaphragm
plate location

③ reinforced
relief valve
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bolt holes

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D.W. WHITEHEAD
Automatic
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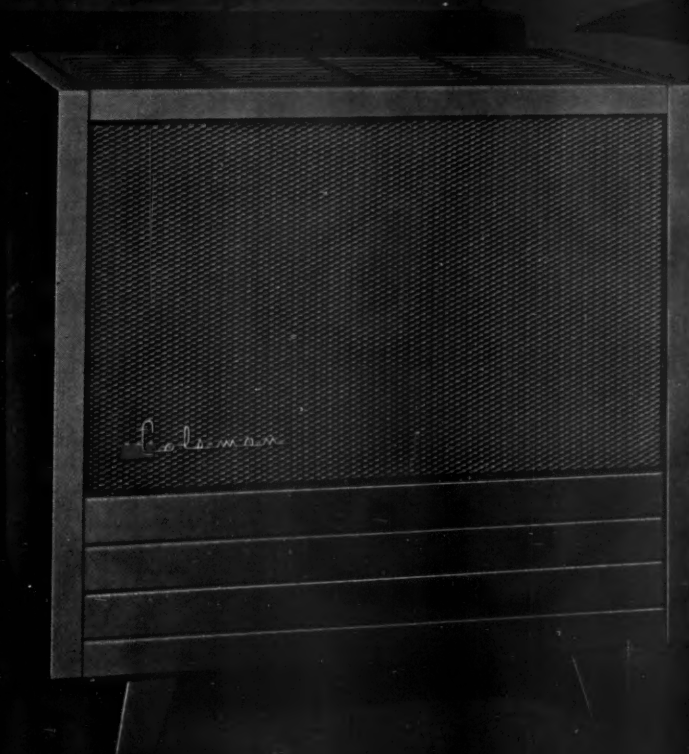
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BUTANE-PROPANE News

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with
changeable
decorator panels



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Here's the delivery unit that has all the factors you need to increase profits: big capacity, durability and economy. Constructed of A 202-B steel under latest ASME Code, the 2600-wg Titan, Jr. weighs less than 23,000 lbs. loaded! The secret is Mississippi Tank's exclusive design which insures perfect weight distribution and maximum loading.

This brand new delivery unit is ruggedly engineered to give years of trouble-free service wherever

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And practical Mississippi Tank engineering enables us to offer you this high quality unit at a surprisingly low price.

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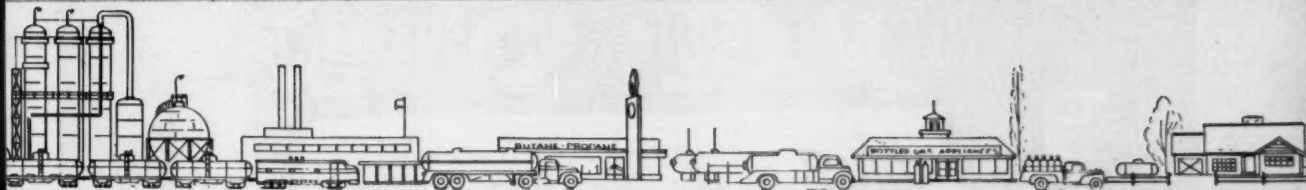
A GREAT LINE OF TANKS... FOR GREATER PROFITS



See the Titan, Jr. at the LPGA Convention

HIGHLIGHTS

BPN



Quietly, unobtrusively, the Grayson Controls division of Robertshaw-Fulton early in April launched the LPG industry's first concerted consumer safety campaign. Thirty-five management-level men went out to cover every LPG dealer in the nation via across-the-desk talks with owners and managers to sell them on two ideas: 1. Giving a Robertshaw-Fulton-provided brochure to every LPG customer, and 2. Making a safety survey of every customer's appliance system, using Robertshaw-Fulton-supplied survey forms and tool kits. The response was both instantaneous and overwhelming. A. C. Hanson, assistant to Grayson's general manager, reports complete cooperation from every large company and 98 per cent of the smaller companies contacted in the first ten days. First day's orders completely wiped out the initial supply of over 100,000 brochures and survey forms! LPG Council Director George Schulte notified Hanson shortly thereafter that the Council's Dealer Sales Aid Committee "wholeheartedly approves the program and authorizes its promotion."

Gas equipment sales will rise 15 per cent in 1959 instead of the expected 9 per cent, GAMA President Clifford D. Coons told 300 delegates to the group's 24th annual meeting in Bal Harbour, Fla. February shipment figures released by GAMA include: 242,400 water heaters, up 12.1 per cent from last February's 216,300; 156,600 gas ranges, up 16.4 per cent from 134,500; 64,700 gas furnaces, up 46.4 per cent from 44,200. Sales for the first two months are up 10 per cent for water heaters, 16.1 per cent for ranges, and 39.3 per cent for furnaces.

While daily natural-gas liquids production in January was up 6 per cent to 36.1 million gal. and refinery production was up 7 per cent to 7 million gal., demand was up 13 per cent to 31 million gal., bringing stocks down to 502 million gal., 14 million below a year ago. (Underground stocks were down 58 million gal. to 306 million gal.)

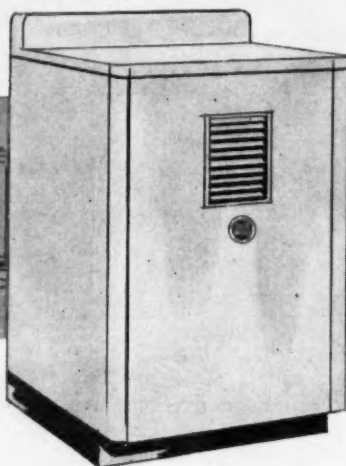
Suburban Propane Corp., Whippany, N. J., reveals a \$2 million increase (5 per cent) in sales for last year. President Mark Anton is confident that Suburban's growth would continue, citing that: suburban areas are growing seven times faster than cities, his per customer monthly consumption has risen from 47 pounds in '46 to 87 pounds in '58, and farm uses are constantly expanding.

HIGH-NOTES: Arkla Air Conditioning Corp. has purchased the Humphrey line of gas heating equipment from General Gas Light Co. . . . Propylene rather than acetylene or ethylene will be the raw material for making acrylonitrile in a new Sohio Chemical Co. plant at Lima, Ohio. . . . Old Mac Industries Inc., Ft. Lauderdale, Fla., will manufacture an LPG-powered golf cart for national distribution via LPG dealers.

**YOU SELL MORE BECAUSE...
YOU HAVE MORE TO SELL
WITH THE JOHN WOOD FULL LINE**

plus
GAS TABLE TOP

AUTOMATIC WATER HEATER



**MODERN DESIGN FOR
MODERN KITCHENS AND LAUNDRIES**

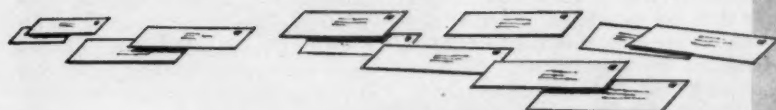
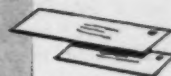
Compact automatic water heater with porcelain top. Easy to install—provides luxurious hot water service for homes where space is limited. Glasslined and galvanized—full warranty. John Wood Table Top gives you more opportunities for sales.

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Heater and Tank Division

Conshohocken, Pennsylvania • Chicago, Illinois



**BPN**

Letters

"Cost" or "net worth"?

Louisiana

I read with great interest Gordon Allard's article, "Should You Sell Stock, etc." beginning on page 37 of your March 1959 edition.

A serious error begins at the top of column 3 on page 42. The "net book depreciated value of your company—\$150,000" is the same as "net worth" in accounting and financial jargon. In all probability, this figure is *definitely not* "Your Cost," as stated by Allard.

Your cost for tax purposes is your tax basis, i.e. what the seller paid for the 25,000 shares in his corporation, which probably would be \$25,000, or maybe \$2,500 or even as little as \$250. Whatever his tax basis was in his old corporation, in the event he swaps stock for stock, will be his tax basis of the shares he receives in the new corporation. If he makes the mistake of taking a few nickles in cash in lieu of a fraction of a share of stock in the new corporation, Uncle Sam will kick out the tax free aspect of the whole deal on the contention that it was not a 100 per cent stock-for-stock deal.

I agree with Allard (except the taxable profit will probably be much greater than \$100,000, as explained above) in connection with "selling on installments," starting in the second column on page 44; however, I feel that your readers should have been warned of a menace concerning the 30 per cent down payment rule. If more than 30 per cent is collected in the seller's taxable year in which the sale is made, the entire capital gains tax is payable that year.

Allard's example calls for 25 per cent down, with the balance payable in 10 annual installments, which is okay. Many sellers have been caught taking 29 per cent down and the balance in *monthly* installments, resulting in more than 30 per cent paid in the taxable year

in which the sale was made and therefore 100 per cent of the capital gains tax being due. Also, when he sells on the legal installment basis, he is gambling that the future capital gains rate will average no more than 25 per cent.

Name Withheld

The reader is absolutely correct with reference to the example at the top of column 3, page 42. In selling a company by exchanging stock, your cost is what you originally paid for the stock and has nothing to do with the depreciated value of the assets nor the net worth.

My example was probably a poor one, but I was attempting to point out the situation with which the majority of LPG dealers would be faced, should they desire to make a tax-free exchange of stock. The vast majority of dealers would probably have to incorporate first and then make their sale, in which event their tax liability would be about as shown by the example. In the interest of brevity and simplicity, it was felt that it would not be desirable to go into too much detail in trying to explain this type of transaction in the article.

One thing which was not mentioned in the article and probably should have been is this: if a sole proprietorship or partnership is sold and receives stock in the buying company, even though the entire payment is made in stock, the capital gains tax is due when the stock is received.

J. Gordon Allard



Rating of boilers

Pennsylvania

We have two prospective customers who want to fire steam boilers with L. P. gas. One is a factory built boiler for LPG—input 336,000 Btu per hr, output 268,000 per hr. Capacity is shown as 268.8 (doesn't say whether this is lb or

cu ft of steam per hr) working at 15 lb pressure.

The other is a 5 hp boiler (formerly used on natural gas) operating at 60 lb pressure, intended to operate 5 to 7 Hoffman Model "X" steam pressing machines. We find, however, that this model machine can operate entirely satisfactorily on a boiler of either ½ hp or ¾ hp. This being the case a 5 hp boiler should produce sufficient steam and the necessary pressure to handle most likely the seven machines.

What we want to know is the amount of fuel (propane) necessary to fire these two boilers at full capacity per hr. There is no recovery of used steam in the first case and very little in the second. Make-up water to the boilers would be about average tap water temperature in this part of the country.

C. J. R.

The first boiler you mention has an input rate of 336,000 Btu per hr and this is the amount of heat which must be supplied to the burners. Since commercial propane has a heating value of about 2500 Btu per cu ft of vapor or 91,600 Btu per gal. of liquid, it will require $336,000 \div 2500 = 134$ cu ft of vapor per hour or $336,000 \div 91,600 = 3.67$ gal. of liquid L. P. gas per hr.

The output rating of 268,000 Btu is the heat from the fuel which actually reaches the water and converts it to steam. This means the boiler has a potential efficiency of $268,000 \div 336,000 \times 100 = 79.8$ per cent.

The second boiler poses a little more of a problem on which to accurately determine the exact fuel needs. The practice of rating boilers by boiler hp is an old method and generally had little if any relationship to the quantity of steam that could be generated. The boiler hp as originally standardized by the American Society of Mechanical Engineers in 1889 was based on a conventional en-

gine steam rate of 30 lb per hp per hr at 70 lb per sq in. gage pressure and feed water at 100 deg. F. This corresponds to the evaporation of 34.5 lb of water per hr from and at 212 deg. F (33,472 Btu per hr); which means the conversion of 34.5 lb of water per hr from water at 212 deg. F into dry and saturated steam also at 212 deg. F and therefore at atmospheric pressure.

The above is purely a technical definition and denotes the amount of heat (33,472 Btu per hr) represented by a boiler horsepower. To find the heat input required the efficiency

must be considered. If this boiler is as efficient as the one discussed above, namely, 79.8 per cent, then the heat input to deliver 5 hp must be $(5 \times 33,472) \div .798 = 210,000$ Btu input. If it is not as efficient a boiler, say only 70 per cent, then the heat input required will be about 240,000 Btu or about 2.6 gal. of propane per hr.

You should, if possible, determine the burner requirements of the boiler. As mentioned above, the practice of rating a boiler by horsepower has little to do with its capacity to generate steam. Many of the large power boilers were often operated at

200 or 300 per cent of rating. That is, a boiler rated at 500 boiler hp by the above method could actually produce a 1000 or even 1500 boiler hp when adequate heat was supplied. Generally, however, the small boilers such as the one which you refer operate fairly close to their rating and 2 to 3 gal. of propane per hr should handle it.

A rule of thumb method of estimating the heat input required on boilers rated in horsepower is one-half gal. of L. P. gas per rated horsepower. However, if it is known that a boiler will operate and may be expected to operate at more than 100 per cent of the rated horsepower, the fuel input should be based on the expected output of the boiler.—Ed.

FOR SUCCESS
you must have the
Right "Connections."

Even a large, independent LP-Gas distributor needs the right "connections" if he wants to grow. It is important for him to do business with a company that can be depended upon to furnish top quality product, good service, engineering assistance, practical merchandising and sales helps.

If you feel you do not have the RIGHT "connections" call Sinclair. The new TRUFLAME 50/50 advertising program, offered to Sinclair distributors, is tailor-made for either the large or small independent. Write or call for the facts about the TRUFLAME program today.



SINCLAIR
OIL & GAS COMPANY

LIQUEFIED PETROLEUM GAS SALES DEPARTMENT

SINCLAIR OIL BUILDING — TULSA 2, OKLAHOMA

Telephone LUTHER 4-0411



POL valve connection is standard for cylinders

The Netherlands

Our butane and propane bottles are provided with the well-known POL valve outlet connection.

Some firms in Belgium are also using this connection, but none of us has had more than seven years' experience with it.

Though we still find it an excellent coupling, it may be possible that in the long run some complaints arise (for instance the nipple may be easily damaged) which are serious enough to prefer another connection system.

We shall be very pleased to learn, what your experiences are in this respect.

C. O. G.

The POL valve outlet connection has been used in this country for more than 30 years. It is the most prevalent connection used and is considered the standard for cylinder valves.

There is no indication or history to show that this type of connection is weak.

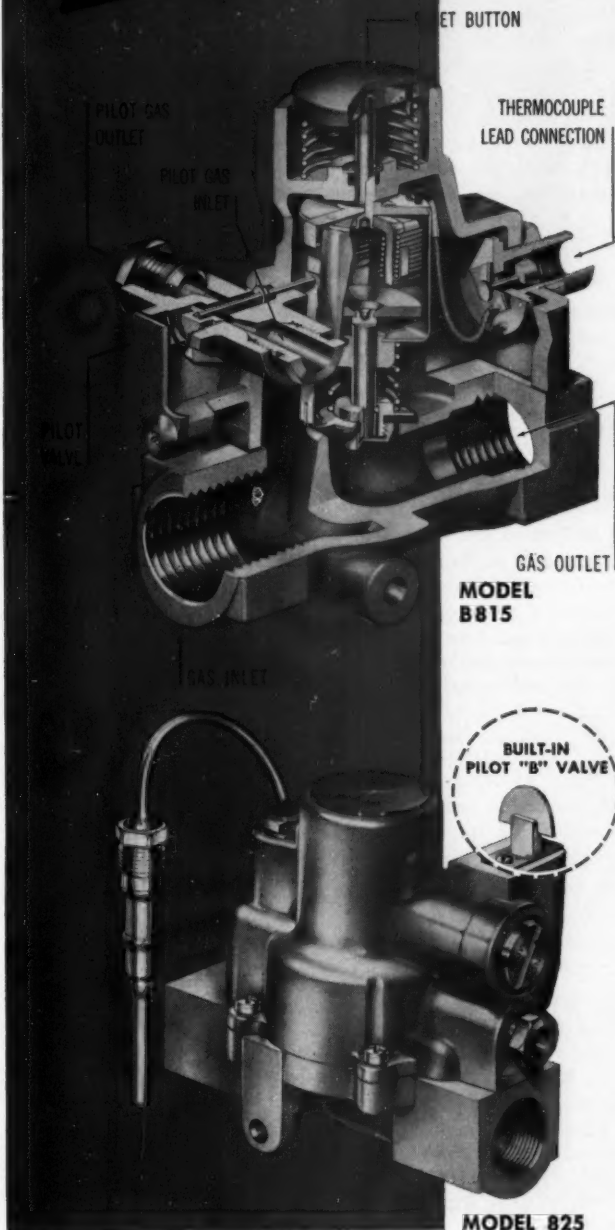
The threaded connection we term an SAE thread, and which is a male thread connection, is often used on valves which may be used on automotive L. P. gas fuel tanks.

On larger connections to stationary type and transport tanks, connections such as filler valves, vapor return valves, hose connectors and similar devices use an "Acme" thread. These connections employ a gasket or washer for effecting the seal and connections that are made easily and quickly by hand tightening.—Ed.

Modified designs for your gas heaters...

BASO[®] VALVES

- CONSERVE SPACE
- SIMPLIFY INSTALLATION
- INDEPENDENT PILOT VALVE



B Space-saving Baso valve designs bring you new economy and unexcelled flexibility in installation on room heaters, wall heaters, and central heating appliances.

The Series B815 and B1815 valve can be mounted in any position...furnished for either manually or automatically operated gas heaters. Independent pilot gas control permits these valves to be used either upstream or downstream from an automatic valve and still provide complete shutoff and safe lighting. Baso design features also provide internal pilot gas takeoff valves for safe lighting and complete shutoff for manually-operated units. Pilot gas inlet and outlet can appear on either side to meet product requirements. The thermoelectric power unit housing can be assembled to the body in either of two positions to facilitate pilot gas and thermocouple connections.

The 825 and 1825 Series Baso valves, companions to the above series, have a built-in pilot gas plug valve. These units are used with manually operated, complete shutoff systems. Same pipe sizes are available as for the B815 and B1815 Series.

The Basotron bipolar magnetic valves make an ideal automatic valve for use with the B815 and B1815 Baso valves.

Check these specifications and tell us about your product design requirements.

For more information about Baso valves, WRITE

BASO INC.

DEPT. SB-3 • MILWAUKEE 1, WISCONSIN

SERIES	INLET AND OUTLET	NATURAL GAS CAPACITY BTU./HR. @ 1" P.D.
B815-400	3/4" x 1/2" F.P.T.	172,000
B1815-400	1/2" x 1/2" F.P.T.	258,000
B1815-500	3/4" x 3/4" F.P.T.	306,000
825	3/4" x 3/4" F.P.T.	137,640
825-400	1/2" x 1/2" F.P.T.	159,850
1825-500	3/4" x 3/4" F.P.T.	252,350

WASHINGTON REPORT

by NEIL REGEIMBAL, *Washington Editor*



**New, strong federal
fair trade law bill
now in
House committee**

★ A HOUSE COMMERCE SUBCOMMITTEE opened hearings in March on the new, strong federal fair trade law proposal made by Rep. Oren Harris (D), Ark., Chairman of the Commerce Committee. Present laws permit states to enact their own fair trade laws, but many such laws have been ruled invalid and are sagging in other states. The Harris proposal would permit federal fair trade laws to operate in any state not specifically forbidding them, a manufacturer to set resale prices by notifying one distributor in a state, and damaged businessmen or manufacturers to sue for damages.

**Double taxes in sight
for firms
doing business in
two or more states**

★ RECENT U. S. SUPREME COURT DECISIONS upholding the right of states to tax out-of-state corporations will result in new taxes and double taxation for many firms. Thirty-five states now have corporate taxes, but their rights to tax profits of out-of-state concerns were indefinite until the new, broad rulings which uphold their right to tax on almost any basis.

**REA moving toward
independent status,
broader power to "raid"
private utility areas**

★ THE HOUSE GOVERNMENT OPERATIONS COMMITTEE has approved legislation that would take control of REA away from the Agriculture Department, making it the independent agency it was before 1939. The bill was touched off by Agriculture Secretary Benson's decision to personally approve larger REA loans to co-ops, a move REA claims is part of an Administration plan to destroy the agency. The power-broadening move, in the form of a congressional resolution, would reinforce rights of REA co-ops to expand into areas served by private utilities.

**TVA gaining in fight
to break away from
Congress and taxpayer
control**

★ HOUSE SPEAKER SAM RAYBURN (D.), Texas, has promised a showdown vote on the house floor this year for a bill that would allow the TVA to sell up to \$750 million of its own revenue bonds to finance expansion of its own electric-generating facilities. The precedent-setting self-financing plan was set up after Congress repeatedly refused funds for such purposes.

**Bills requiring
"normal" taxes
for farm co-ops
may pass this year**

★ PERHAPS THE ONLY EXCEPTIONS in the President's apparently-to-be-defeated tax program are a pair of bills removing a 1951 court-created loophole giving farm co-ops virtually tax-free status. One bill, by Rep. Clifford Davis (D), Tenn., would require that taxes be paid on all rebate certificates issued by co-ops to members and would require co-ops to pay "normal" taxes on its income without setting aside a portion for such rebates. The other bill, by Rep. Thomas B. Curtis (D.), Mo., would tax co-op income when earned, not permitting it to be placed in never-to-be-redeemed rebate certificates, allowing profits to be retained for working capital or price-cutting.

(Details on pages 118-120)

To sell them on LP-GAS *sell them*



Siegler

PATENTED AUTOMATIC

**SIEGLER'S TROUBLE-FREE PERFORMANCE
GUARANTEES WARM FLOORS
AND SATISFIED LP-GAS CUSTOMERS**

Siegler's outstanding performance and features help you sell LP-gas heating. Build volume sales with satisfied customers and cut your service costs.

Exclusive "Traveling" Floor Heat ends the cost and discomfort of overheated ceilings. Siegler's Patented Inner Heat Tubes capture the heat others waste. The Patented Built-in Blower System "travels" it over the floors. That's why Siegler alone can offer this guarantee: *more and hotter heat over the floor—or money back.*

Here's performance and features you can demonstrate and sell! And Siegler makes warm friends for LP-Gas and *all LP-Gas appliances!* You get higher profits, higher earnings for salesmen, and no worries for the service department, when you sell Siegler.

HOW SIEGLER HELPS YOU SELL:



1. Solid Advertising Support. Siegler gives you a generous dealer advertising plan that sells Siegler heaters and your store! Nationally, Siegler backs you with the biggest advertising campaign in the business.

2. Special Promotions. Make big profits running tested promotions that fit your business to a "T." Siegler supplies a complete package of material for each promotion, and we help you run it!

3. Selective Distribution. When you merchandise Siegler, you're the dealer who cashes in on national and local advertising. Get all the facts on Siegler Selective Dealership plan.



4. Your profit stays in your pocket... no loss for call-backs and complaints. Siegler quality sees to that and makes every customer an enthusiastic salesman for you.

5. A Complete Line. There's a Siegler with "traveling" floor heat that's just right for every home from 2 to 7 rooms. You can solve any home heating problem with Siegler.

6. Your Own Merchandising Man. Your Siegler Representative is a full-time, trained specialist in the home heater field. He will show your salesman how to "sell 'em up" to Siegler, and help you plan your advertising, promotions and demonstrations.

**SIEGLER DOES MORE
WITH LP-GAS
MORE
FOR LP-GAS!**

See the amazing
NEW SIEGLER MARK III
AT BOOTHS 195 AND 196

Nor-Tex**BIGGER
PAYLOAD**

DELIVERY UNITS

2500 WG Units Now Weigh Under 23,000 lbs. Loaded!**STANDARD TWIN • PAYLOAD SPECIAL • CUSTOM TWIN • DE LUXE TWIN**

Nor-Tex presents the newest development in sleek, LIGHT-WEIGHT, stream-lined, twin or single barrel LPG Delivery Units and again Nor-Tex is FIRST with ALUMINUM SKIRTING and CABINETS and engineering designs which have reduced over-all weight. 3000 WG units and over are also available for use on cab over or cab forward trucks and are still within the 18,000-lb. axle limit.

Nor-Tex Custom units haul "extra" gallons each trip! You deliver "extra" gallons faster with Nor-Tex custom designed high flow plumbing. You take fewer hours and travel less miles to deliver a gallon of gas. For day in, day out efficiency, durability, payload, fast loading, high rated delivery, perfect balance and appearance Nor-Tex delivery equipment can't be beat!

*Ideal In States Imposing Ton Mile Tax***Nor-Tex**

TRANSPORTS

You can now haul MORE GAS and LESS STEEL than ever before with skillfully engineered, smart looking, streamlined Nor-Tex transports of T-1 and A-202 steel. These easy-to-maneuver, road-tested units are hauling more gas and substantially boosting profits for users everywhere. Nor-Tex transports are safe and dependable . . . built by men with years of bulk plant experience. May we help you? Phone, wire or write today! Interested attention, experienced assistance and helpful suggestions are yours for the asking.

We Are Truck Distributors

As authorized new truck distributors Nor-Tex can save you hundreds of dollars on Internationals . . . Chevrolets . . . Fords and GMC's. Order any unit you need. You can't beat a Nor-Tex deal for all around value.

Be Sure to Visit
Booths 36 and 37
LPGA
National Convention

WRITE, WIRE
OR PHONE
FOR PRICES



National Sales Agents for

NORTH TEXAS



Nor-Tex ROCKET

Boosting LP Gas Sales Everywhere

New 1000 and 2000 WG Nor-Tex "Rockets" (strategically placed for best distribution) will substantially boost year 'round sales and quotas for bulk plants everywhere. Makes an excellent attention compelling ad to attract LPG customers. Large, enclosed cabinet at base, with convenient arrangement of fittings, is flexible to any type of installation. Complete self-contained unit (pump-valves-meter-strainer-hose) occupies only 72" diameter.

Completely Flexible

Nor-Tex Rocket Service Stations can be used as storage with any type or make of dispenser... installed on base of rocket or on an island.

STRONGEST WELD

EXTRA STRENGTH

Custom Made Hood

Multi-Valve

Rego Regulators



Internal Relief Valve
On All STAR Systems

HITCH YOUR PROFITS TO A STAR

- ★ Can't be beat for Quality... Features... Design or Price.
- ★ Nor-Tex construction exceeds all safety requirements
- ★ Thoroughly buffed and cleaned for finest appearance.
- ★ The Nor-Tex STAR is completely fitted and ready for use.
- ★ Bottom outlets are standard on all above ground tanks.
- ★ Immediate delivery on one Nor-Tex STAR or a truckload.

2% - 10 days, on truckload lots delivered in our trade area or ask about our finance plan.

LOOK TO Nor-Tex For ALL Your LPG NEEDS



One **Nor-Tex** Call
Gets It All!



**Nor-Tex
LOW COST
Financing**

A PLAN TO MEET EVERY NEED

TANK CO.

P. O. BOX 1219
DENTON, TEXAS
DUpont 2-5416



Aluminum

Metallic Blue

Metallic Green

NOW IN 3 COLORS

Sheffield gas cylinder paint

Here's an EXTRA that will add excitement to your business! Sheffield has developed this special gas cylinder paint formulation of a METALLIC paint in pastel blue and green in addition to its well known aluminum... and it's great! Takes plenty abuse... and comes up bright and smiling! Available in gallon, 5 gallon and 55 gallon containers.

- FAST DRYING
- MAY BE STENCILLED WITHIN 15 MINUTES
- HARD SURFACE
- WON'T RUB OFF
- SATIN FINISH
- MAY BE BRUSHED OR SPRAYED
- MADE WITH A SPECIAL SYNTHETIC VEHICLE THAT IS INSOLUBLE IN TURPENTINE OR ORDINARY PETROLEUM THINNERS

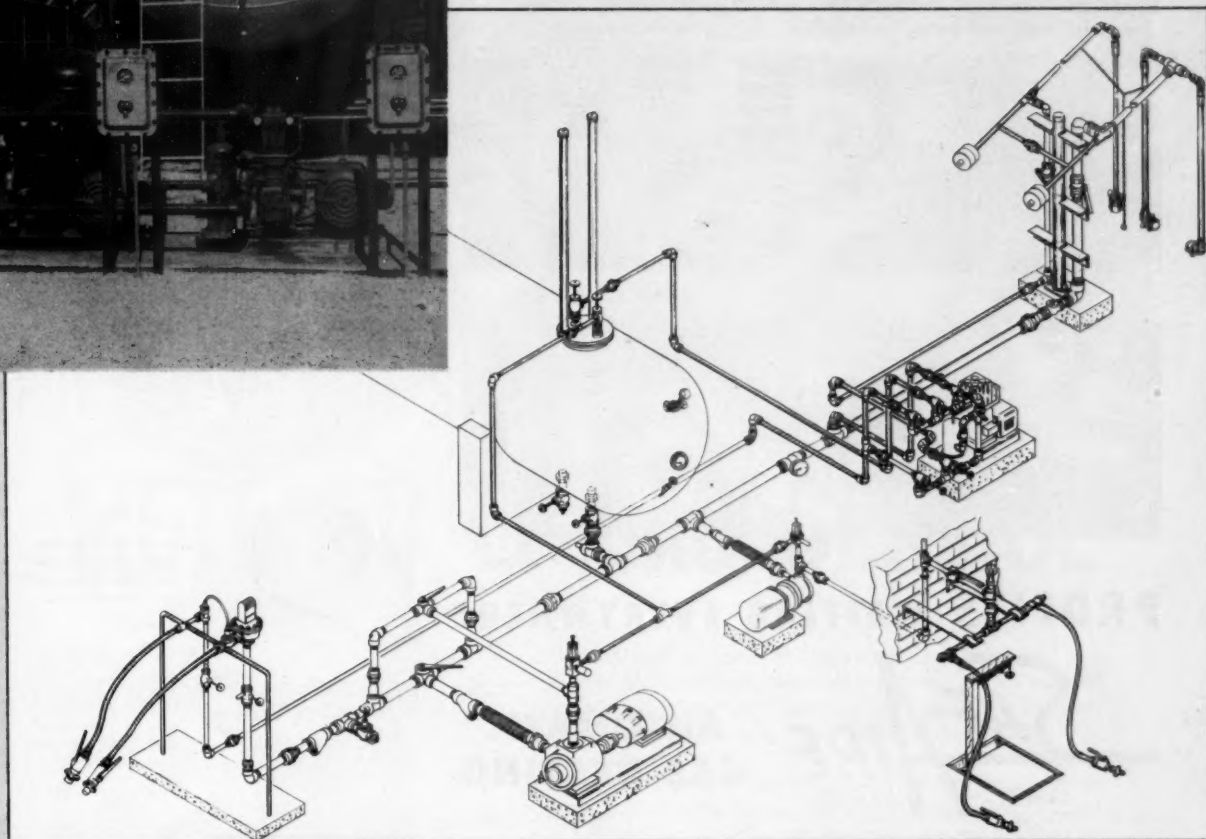
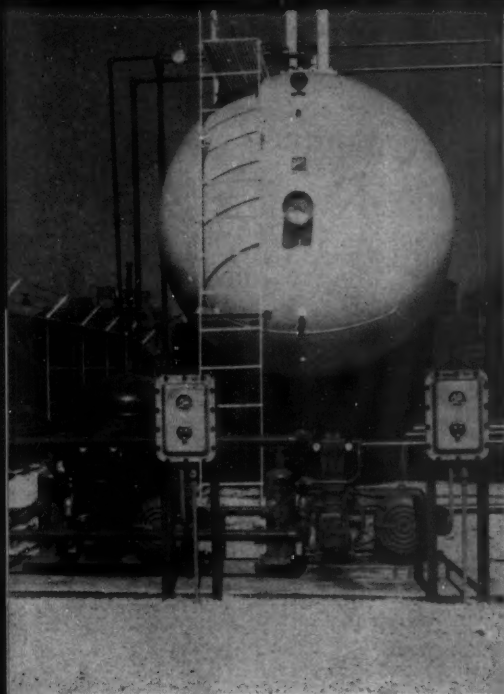
Sheffield ALUMINUM TANK PAINT

Extensive weather-o-meter tests prove this NEW aluminum paint will resist more than one and one-half years EXPOSURE TO WEATHER EXTREMES! Formulated to do TWO specific jobs... to PROTECT surfaces against rust, wear and corrosion and to add a long lasting attractive finish. Covers all primed surfaces in ONE COAT... economical because it is long lasting! Ideal for Bulk Gas Storage Tanks.

SHEFFIELD BRONZE PAINT CORPORATION

Cleveland 19, Ohio

Gallonage **UP** . . .
 but **NET** down
 then try **ANCO** now!



Improve Your L P Gas Storage and Handling Equipment the ANCO way

Anco can handle all or any part of an LP Gas plant, new or modernization project, on land or water. Two plate shops and complete warehouse stocks enable ANCO to meet delivery requirements and competition.

Profit can't stay up if you are handicapped by inadequate storage, inefficient layout and slow transfer equipment.

Anco Engineers will help you make an operating survey of your plant. If remodeling or higher capacity equipment will help, an Anco engineered plan is immediately available — complete to the smallest ell or tee.

ANCO

MANUFACTURING & SUPPLY CO.

ANCO has the answer to increased profits, ask us first.

Tulsa, Oklahoma • 21st at Union • LUther 4-6187
 Memphis, Tenn. — 241 Industrial Avenue — WHitehall 6-1694
 East St. Louis, Ill. — 6503 St. Clair Ave. (Hy. 50) — Express 7-0200
 Des Moines, Ia. — 327 Insurance Exchange Bldg. — CHerry 4-5347



For added rooms and enclosed porches



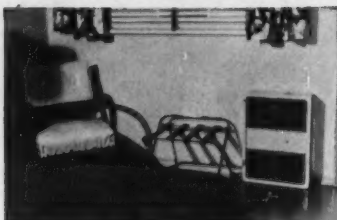
...for workshops



...for offices



...for hard to heat rooms



...for motels



...for bathrooms

PROFITS WAITING EVERYWHERE

SAF-AIRE
SAFETY-SEALED

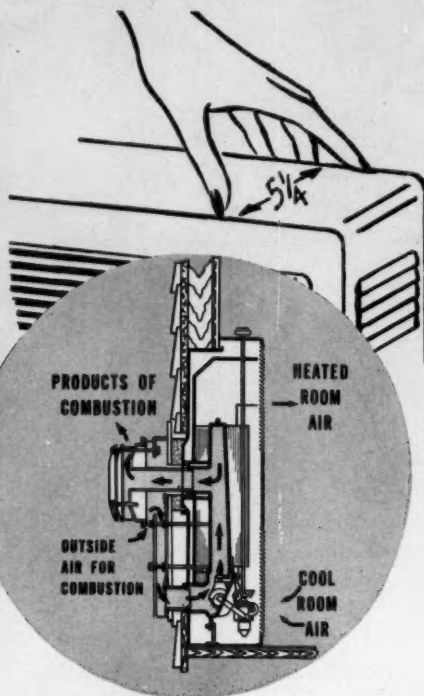
AUTOMATIC GAS HEATING

Dealers handling Stewart-Warner Saf-Aire Heaters never run out of money-making opportunities! Saf-Aire units can be installed so easily ...with such complete safety...in so many places...and with such customer satisfaction, that they represent a substantial source of profits.

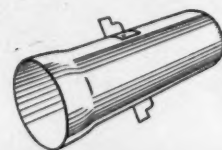
Saf-Aire units are space-savers—extending only $5\frac{1}{4}$ " into the room. They're handsomely finished in baked enamel—harmonize with any decorative scheme. *Easy to install...no chimney—no ducts—no electricity needed!*

The diagram shows the "Safety-Sealed" design of Saf-Aire Gas Heaters. Gas is burned in a ceramic lined steel chamber completely sealed from the room air being heated. Sealed vents through the wall supply outside air for combustion and discharge products of combustion directly outdoors. No stuffy, suffocating rooms.

Saf-Aire is safe under all conditions of use...approved for bedroom installation. Its many exclusive features have been tested and proved in over 12 years' operation in the field.



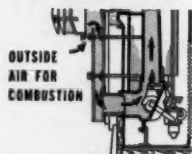
Easy installation. Square hole simplifies installation in any type of wall.



Terminal exhaust tube is aluminized steel—will not rust or corrode.



Easy servicing. Loosening two screws permits removal of entire burner assembly and controls.



Write today for information on how to obtain a Saf-Aire Dealership.

Symbol of
SW
Excellence

STEWART-WARNER

HEATING AND AIR CONDITIONING DIVISION

Dept. AT-59, Lebanon, Indiana



PUT HER ON YOUR SALES TEAM WITH EASY-TO-READ METERED LP-GAS SERVICE

NEW AMERICAN® WELDED STEELCASE WC-45-LPG METERS



SPECIFICATIONS

Rated capacity 45 cfm propane and 40 cfm butane at 1/2-inch w.c. differential — 5 psi working pressure — 1/2-inch F.P.T. connections — shipping weight 8 lb. F.O.B. Philadelphia.

CONSTRUCTION

Sturdy, light weight, welded steelcase construction — removable soldered top for easy meter accessibility — new lifetime corrosion protective finish.

INDEX

Internal, counter-type index for easy meter reading — one-piece, plastic index box glass eliminates breakage problems.

FEATURES

Bellows-type, molded Duramic diaphragms for LP-Gas service — one-piece, Nylon valve guides — grommet-type flag rod seals for minimum friction.



One satisfied customer sells another when you build confidence and give economical, dependable LP-Gas metered service with American® meters. More and more industry leaders every day are profiting from the load-building advantages of metered service... and making big SAVINGS: savings in delivery costs — savings in storage space — savings in man hours — savings in maintenance costs.

LP-Gas meters bring "utility-type" service to your customers — helps you sell more gas and gas appliances. To learn how you can build loads faster and reduce operating costs, write for American's free booklet, "Guide to LP-Gas Metered Service", or ask your American representative for a copy.

American's attractive new WC-45-LPG Welded Steelcase meters are ideal for average domestic service and provide accurate measurement from pilot to full capacity. Larger capacity Welded Steelcase, Aluminumcase and Ironcase meters also available for small commercial and home heating loads.

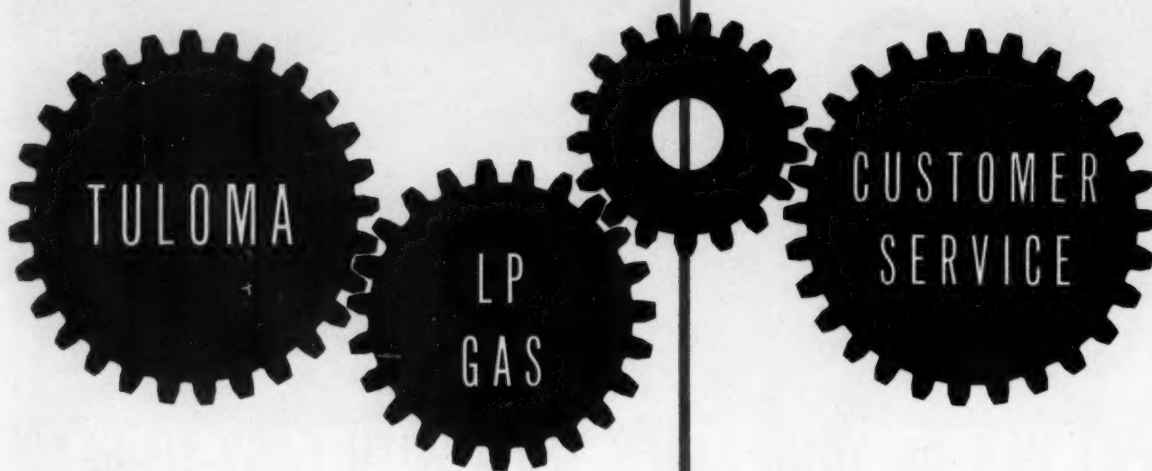


AMERICAN® METER COMPANY

INCORPORATED (ESTABLISHED 1898)

GENERAL SALES OFFICE: Philadelphia 16, Penna. • Albany • Alhambra • Atlanta • Baltimore • Birmingham • Boston • Chicago • Dallas • Denver • Erie • Houston • Kansas City • Los Angeles • Minneapolis • New York • Omaha • Pittsburgh • San Francisco • Seattle • Tulsa • Wynnewood
IN CANADA: Canadian Meter Company, Ltd., Milton, Ontario • Calgary • Edmonton • Montreal • Regina • Vancouver
SUPPLIERS TO THE GAS INDUSTRY for Ironcase, Tinned Steelcase, Aluminumcase, and Welded Steelcase Meters • American-Westcott Orifice Meters • Instruments • Reliance Regulators • Apparatus • Valves

THE SHIFT IS TO...

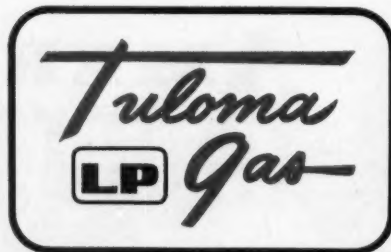


More and more growing distributors and dealers across the nation are contracting with Tuloma for better LP-Gas service. Here's why:

- Tuloma has production from more than 50 plants and refineries
- Tuloma has strategically located storage — both underground and aboveground facilities
- Tuloma has large, modern tank car and truck fleets to assure you dependable, on-time delivery
- Tuloma has experienced service personnel who are able to help you with your LP-Gas problems

For a supplier that will help you grow —

SHIFT TO TULOMA!

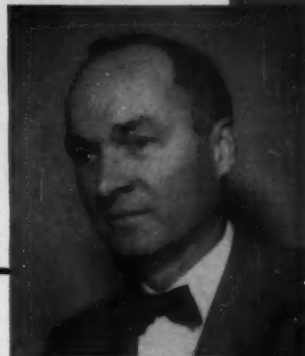


DISTRICT OFFICES: Williamsburg, Virginia • Moorhead, Minnesota • Salt Lake City, Utah • Billings, Montana • Des Moines, Iowa • Russell, Kansas • Houston, Texas • Midland, Texas • El Dorado, Ark.

TULOMA GAS PRODUCTS COMPANY
Pan American Building • Phone CHerry 2-3261
Tulsa, Oklahoma

Beyond the Mains

With WILLIAM W. CLARK • Editor



Make Way for the "Golden Sixties"

What we feel is the most comprehensive survey ever made of the L.P. gas industry is the central feature of this, our annual May convention number. It was a gigantic task, but it's one we intend to repeat every year, with variations. In this way, we'll build a moving picture of the industry, not as it is statically, but as it progresses and grows.

The current survey, however, shows things as they are today, not as they will be tomorrow. The only crystal-balling is the estimate of equipment purchases and sales during the current year, already four months along.

Fortunately, a dynamic presentation of a highly profitable segment of the industry is now at hand. This is the report of H. N. Forman on National Propane Corp., the gigantic LPG distribution company which he heads. It ties together the pictures of yesterday, today, and tomorrow, and it shows tomorrow as a time of great promise.

The story has industry-wide significance because of the size of this one company. National Propane, organized just five and one half years ago, had as of last December 1 more than 300,000 customers and was selling gas at a rate of 213 million lb per year.

The chronicle of National Propane shows a strong growth trend. From the end of 1956 to Dec. 1, 1958, the roster of customers increased from 281,558 to more than 300,000. Gas sales rose from 183 million lb to 213 million. Consumption per customer grew from 649 lb to 710.

The picture of National Propane will be even brighter at the end of 1959. On December 1, National acquired Arrow Gas Co. of New Mexico, adding more than 60 million gal. to the sales scale and an amazing 2000-gal. per-customer annual consumption to the total company average. This impressive record was built primarily on the tractor load, for in New Mexico

it is estimated that more than 98 per cent of all farm tractors are fueled with LPG.


This condition, related to certain other factors, has particular meaning for LPG dealers everywhere. First, consider that average consumption in National's two eastern divisions, Conservative in the New York-Long Island area and Lehigh in southern New England, is only 150 gal. per customer. Those markets, obviously, have hardly been nicked. In January, the trend toward increased freight rates was reversed. This, coupled with increased supplies in the East, means laid-in costs are going down.

"As a consequence," says Forman, "in a few years new markets will be opened to us. We already have a promising start in the use of propane for fork lift trucks. Tractors, irrigation, weed burning, home heating, and a host of other applications will be available to us when supplies, at the appropriate price, are available."

Similarly, in the Great Plains Division, which covers eight midwestern states, per-customer usage stands at a modest 250 gal. per year. Here too, transportation costs are heading downward. Furthermore, as Forman points out, "Our predecessors had not wanted to come to grips with the problem of bulk service. Recognizing that the trend in our industry is toward volume applications of our product, we took immediate remedial steps." Already, 6000 of some 215,000 customers in this region have been converted to bulk.

So the best, for National Propane and for virtually all LPG dealers, is yet to come. We're moving into what Forman terms the "Golden Sixties," when the boom birth rate of the '40's will be felt in a sharply increasing rate of family formation. Concurrently, the trend toward suburban living will continue, opening up new fringe markets for LPG dealers all over the nation.

This is the sort of story we expect our "moving picture" to portray in the years to come.



If you sell the liquefied petroleum
gas industry... you can sell best in



... the pioneer publication of the industry and the leader in advertising volume for 20 straight years. Published monthly, BPN gives audited circulation of more than 15,000 in some 11,600 liquefied petroleum gas plants. It reaches every known bulk plant—where 85% of the industry's buying power is concentrated—plus all known full-time bottled gas dealers. It serves the men actively engaged in the sale and distribution of LP gas and the appliances and equipment necessary for its use. A plant count and a job-title analysis of readers reflect the breadth and quality of market coverage. Known as "headquarters for LP gas information" since 1931, BPN has won every reader survey independently made by advertisers—and by an average margin of nearly 3 to 1.




Butane-Propane News is published by Chilton—a company with the resources and experience to make each of 17 trade and industrial publications outstanding. In keeping with policy, the staff of Butane-Propane News devotes full time to the publication, striving for editorial excellence and quality circulation, earning the confidence of readers and advertisers alike.

BUTANE-PROPANE NEWS

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*A dependable supply of
LP-Gas is essential to
service and sales. More
independent distributors
and dealers are teaming up
with Texas Natural where
production capacity, storage
facilities and delivery
anticipate your needs.*

product

*Regardless of season . . .
Texgas is geared to serve
you with product, aids and
services to help your sales!*



Texas Natural Gasoline Corporation

800 ENTERPRISE BUILDING

TULSA, OKLAHOMA

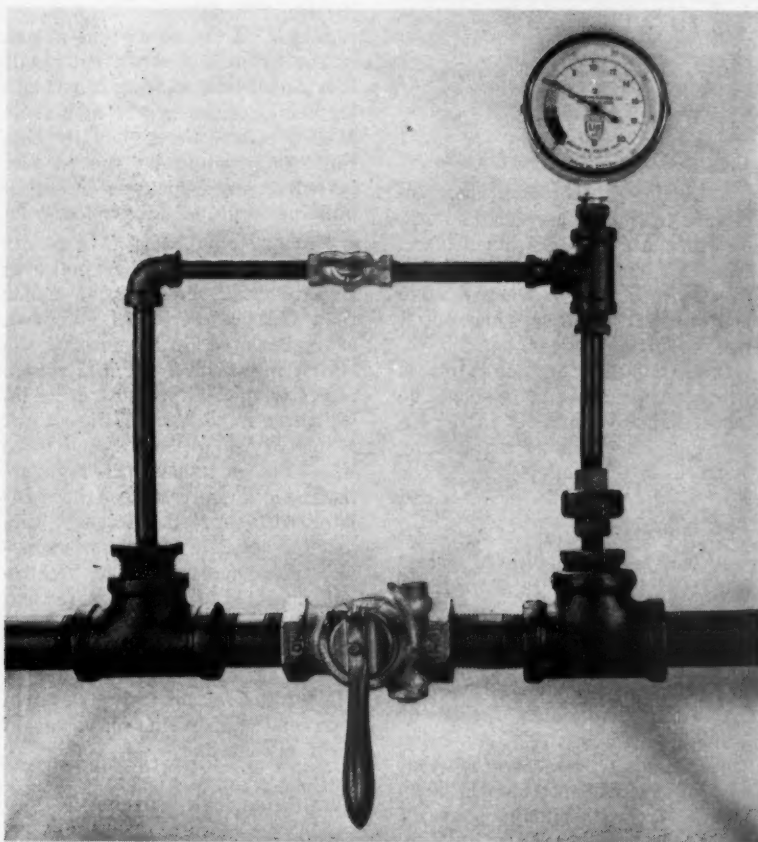
PRODUCERS OF: BUTANE • PROPANE • NATURAL GASOLINE

In place of the BPN "bug" that always identifies the first feature page, this month's "lead edit" sports the BPN Market Study "bug," symbol of the monumental industry portrait that begins on page 33.

MAY 1959



A simple direct-reading leak-testing device for L. P. gas installations



EARLE A. CLIFFORD
Industry Training School
Farmington, Maine

ALL who have anything to do with L. P. gas installations agree that no installation should be placed in service until it has been properly leak-tested. NFPA Pamphlet No. 58 specifies that an L. P. gas piping system shall be proved free from leaks by the use of a manometer or equivalent device which will show a drop in pressure. The leak-testing device explained here is not intended to take the place of the conventional pressure test, nor is it recommended for testing new installations or for any installation where, for one reason or another, a thorough leak test should be made.

This new idea in leak testing is particularly applicable to gas installations where an occasional test is made to assure the operator that

Fig. 1. Direct reading leak testing equipment in operation. Test gauge indicates a very slight leak in the piping system. Equipment was constructed by students in the Gas Fuel Technology department at Southern Technical Institute.

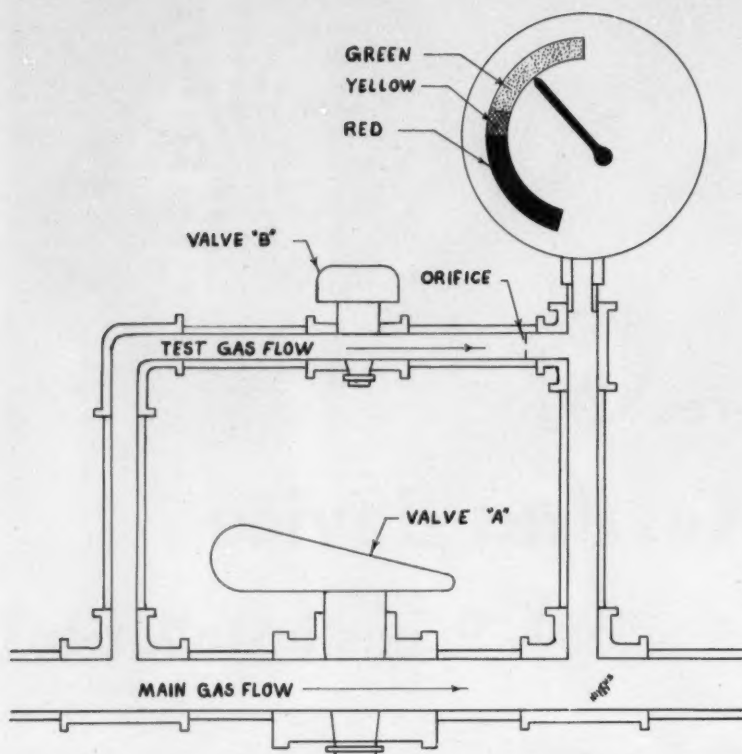


Fig. 2. Flow diagram showing the operating principle of the direct-reading leak-testing equipment.

the gas system continues to be free from leaks. If a leak is indicated, the device shows at once whether the leak is minor or serious enough to warrant immediate attention. The special merit of this method is that a test can be made in a matter of minutes without the necessity of connecting test equipment to the system. The gas supply is shut off and a glance at a pressure gauge is all that is necessary to tell the tightness of the piping system. Since this test can be made quickly and easily, the operator will apply it in many cases where he would not take the time to make a conventional check.

Possible applications

A few of the specific applications for this leak testing method are:

1. Any commercial or industrial installation in which there are more than the usual opportunities for leaks to develop, whether because of the size of the system or because the piping is subject to physical damage.

2. A laboratory or shop where appliance testing, experimental work, or other use of LPG takes place. Frequent changes in gas piping may be made and at times a valve may be left open or some outlet may be left unplugged.

3. Installations in public places where periodic leak tests should be made, either voluntarily in the interest of safety, or as required by law.

The components

A leak-testing device in actual operation is shown in Fig. 1. It includes:

1. A main shut-off valve controlling the piping system to be tested. Normally this would be installed outside or immediately inside the building which the installation serves. This device tests only that part of the system which is downstream from the main shut-off valve.

2. A bypass with manual valve through which gas at normal pressure can be introduced into the

system when the main shut-off valve is closed.

3. A restricting orifice in the bypass line which limits the amount of gas which can enter the system during the leak test.

4. A gauge which serves a two-fold purpose: it indicates the normal operating pressure of the system at all times, and it shows how much pressure is built up in the system during a leak test. The operating range of the gauge is marked off in three divisions, which—assuming a low pressure system operating at 11 in. wc—would be:

0-5 in. wc (marked in red)—If the pointer comes to rest in this pressure range, a serious leak is indicated. The gas should not be turned on until the leak is located and repaired.

5 to 6 in. wc (marked in yellow or orange)—When the pressure is at this point, it indicates a leak or leaks equivalent to the restricting orifice in the test equipment. The orifice size has been selected for a particular installation and was determined on the basis that a leak of equivalent size would not result in a combustible mixture of gas and air being formed in less than some predetermined time. Usually this time limit would be the longest period during which the room or building would be unoccupied.

6 to 11 in. wc (marked in green)—Pressure in this range indicates a "safe" leak, one that is smaller than the predetermined standard, as represented by the size of the restricting orifice. If the gauge indicates the full pressure of 11 in. wc, there is no leak. With a tight system it will normally read more than 11 in. wc because it is registering the lockup pressure of the regulator with no load. Actually, this test for absolute tightness is superior to the manometer test because it is operated at slightly more than normal operating pressure, rather than at 9 or 10 in. wc, as is frequently the case. This test method, of course, does not test the system between the main shut-off valve and the fuel container.

Facilitates leak searches

One interesting and valuable feature afforded by the method under discussion is that it facilitates the search for leaks, if they are

Leak-testing . . . Orifice should be equivalent in size to that of the maximum leak

indicated. Assume, for example, an installation with several automatic appliances, all of which are equipped with 100 per cent pilots. If the system is shut down, the safety valves close and no gas will escape, provided, of course, there are no leaks. This method shows the condition of the system from the instant the gas is shut off. The gauge immediately indicates a serious leak. Then, as one safety valve closes, the pointer jumps up a little. Another one closes and the pressure comes up still more. When the final safety shut-off closes the pointer goes up to 11 in. wc or a little higher, proving that there are no leaks.

The same pattern is followed when searching for leaks. At the start, the gauge may be in the red indicating a serious leak. A branch line to a space heater is shut off and the pressure remains the same, so the line is apparently tight. Next, the water heater line is shut off. Immediately, the pressure comes up a few inches, but is still in the red. Evidently there is a leak in this line, but there are other leaks. A floor furnace line is shut off and immediately the gauge swings up into the green, registering about 10 in. wc. The leaks have been reduced to safe proportions and the gas may be turned on so the remaining small leaks can be located with soap and water. After all leaks are located and repaired, the main valve is closed and another test made.

Operating principle

The operating principle of this testing method is shown in the accompanying drawing (Fig. 2). With the main valve, "A," closed, gas travels through the shut-off valve "B" and the restricting orifice. The pressure which the gas is able to build up in the piping system is registered on the pressure gauge.

Full pressure will be registered on the gauge if the system is gas tight. On the other hand, a serious leak in the system prevents pressure from building up because it escapes through the leak as quickly as it enters through the orifice.

When a leak is equivalent in size to the restricting orifice, the gauge will register between 5 and 6 in. wc. Assume that such is the case and that with a normal line pressure of 11 in. wc the gauge reads $5\frac{1}{2}$ in., which is the pressure in the piping system under test. At the orifice, the pressure on the upstream side is 11 in. while on the downstream side, there is a back pressure of $5\frac{1}{2}$ in. wc. The net pressure available to force the gas through the orifice is 11 minus $5\frac{1}{2}$ or $5\frac{1}{2}$ in. Therefore, both the orifice and the gas leak are subject to the same pressure. With the pressure stabilized, it is obvious that the same volumes of gas are flowing through both the orifice and the leak. If the pressure and volume of flow are the same, the openings through which the gas is flowing must also be the same.

It is obvious, too, that if the test gauge shows only 1 in. wc pressure, the leak must be larger than the restricting orifice, since at only 1 in. of pressure, it is passing the same volume of gas as the orifice is passing at 11 minus 1 or 10 in.

A sample case

The size of the restricting orifice used in the test depends on the specific application. As a rule, the orifice should be equivalent in size to that of the maximum leak which could be tolerated without undue hazard. A specific example:

A small laboratory is 15 x 30 x 10 ft with a total volume of 4500 cu ft. The lower limit of flammability of propane is 2.4 per cent, therefore it would require 4500 x 0.024, or 108 cu ft of gas, to form

a combustible mixture. The lab is closed from Friday night to Monday morning for a total of 64 hours. The largest leak which could be tolerated here is one which would require 64 hours to form a combustible mixture on the assumption that the room is perfectly tight. Since, actually, there will be many air changes during the 64-hour period, this introduces a considerable safety factor. If 108 cu ft of gas escape in 64 hours, the rate per hour would be 108 divided by 64 or 1.7 cu ft. In terms of Btu this is equivalent to 1.7 multiplied by 2525 or 4293 Btu per hour. An orifice table will show that a No. 73 orifice has this approximate capacity and is the size for this particular installation.

If, during a leak test, the gauge indicates a pressure of $5\frac{1}{2}$ in. wc, the leakage at normal pressure is approximately 1.7 cu ft per hour. With a leak of this size, the gas can be turned on without any immediate hazard, since it would take over two days to form an explosive mixture. The yellow zone, however, suggests caution, and the leak should be attended without much delay.

The device in action

How well this test method works in daily use is demonstrated at Southern Technical Institute. An instructor arrives at the Gas Fuel Lab fifteen minutes before class, intending to use gas for a demonstration but he finds someone has shut off the main valve. Under such conditions, one doesn't just turn the gas back on for someone may have found a bad leak, repairs to the piping may have been started, or some one may have removed an appliance, leaving an outlet wide open. There isn't time before class for a careful check of the piping system but this isn't necessary, since the leak-testing device was installed at the main shut-off valve. The instructor opens the valve in the leak-testing equipment and within one-half minute, the gauge registers 11 in. wc, indicating the system is tight. He has followed the rule which should govern all those who handle LPG: *Never turn gas into a system until you know that it is safe to do so.* ■

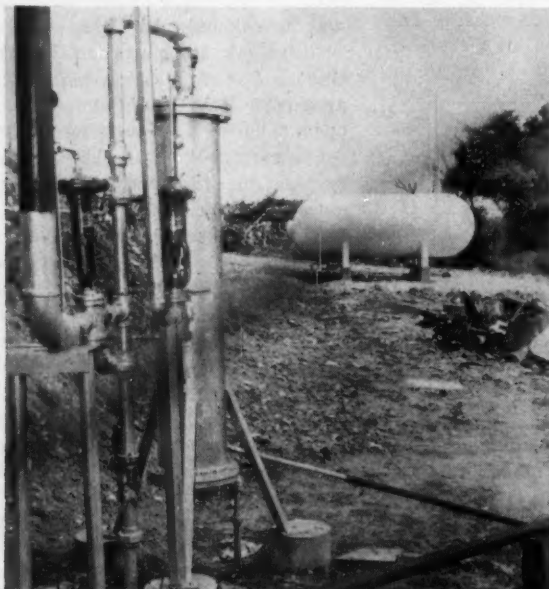


1. Raw material for the cedar oil are these sprawling stacks of posts, hauled in from nearby farms. The plant grinds up about 22,000 lb of posts per day, extracting oils for shipment to perfume manufacturers.

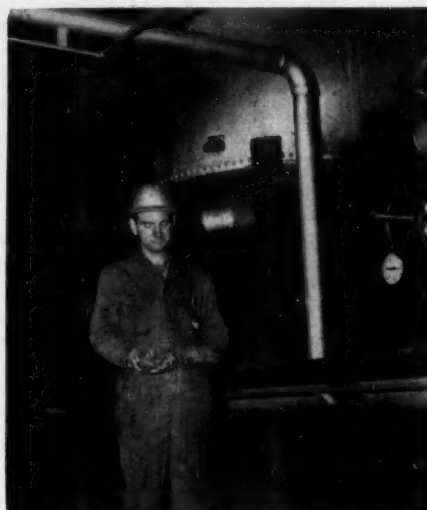
Perfume from cedar stumps— with an assist from LPG

At the plant of Texas Cedar Oil Co., located in tiny Glen Rose, Texas, LPG-fired boilers are distilling highly prized oils out of cedar posts for use in making some of the world's finest perfumes.

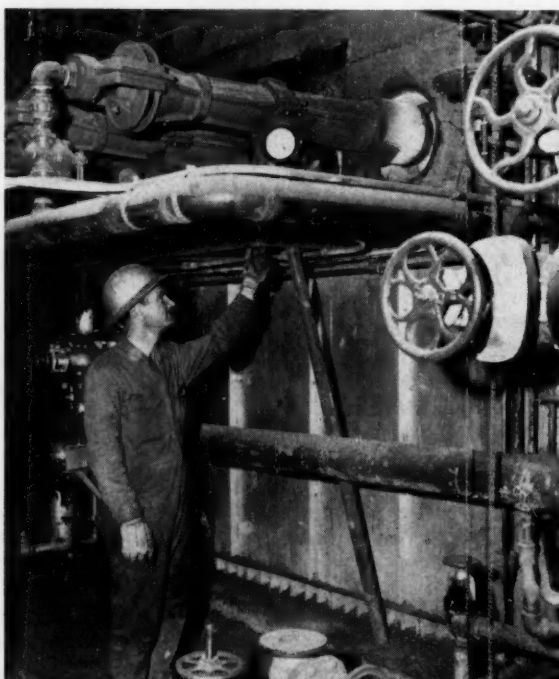
3. LPG for firing the boiler is stored in two 5000-gal. tanks. The vaporizer, especially designed and rigged by engineers at Lone Star Gas Co., is located at the side of the boiler building, 125 ft from the tanks. About 2800 gal. per day, at a peak load of approximately 350 gal. per hour, is used to supply heat to the boiler. Feed water runs to about 2000 gal. per hour on full operation.



2. The first step in the process is the grinding of the wood to a fine cedar, samples of which are shown by plant superintendent Ben Williamson Jr. The shavings are then placed in one of four large vats (background), where high-pressure steam distills out the oils. The remaining pulp, which was once used as a fuel for the boilers, is now sold to oil firms for plugging large formation openings. Following extraction, the oil and accompanying water vapor are condensed by passing them through a series of pipes immersed in cold water, after which they are piped to a separator where the pure cedar oil is drawn off, barreled, and shipped to the perfume manufacturers.



4. Williamson checks the gas pressure at the boiler. The gas is burned in three throttling burners of the nozzle-venturi type manufactured by Webster Engineering. Fisher and Minneapolis-Honeywell controls are used.



First Annual Survey of the LPG Industry



THIS IS YOUR INDUSTRY

THE L.P. gas industry is a vast and diversified one. No two dealers operate exactly alike, nor do they have identical sets of problems. It's a growing industry, as we well know; estimates of the rate of growth have placed it high up on the scale of all industries. At various times, it has been said to rank No. 2 in this respect, behind the fabulous electronics business.

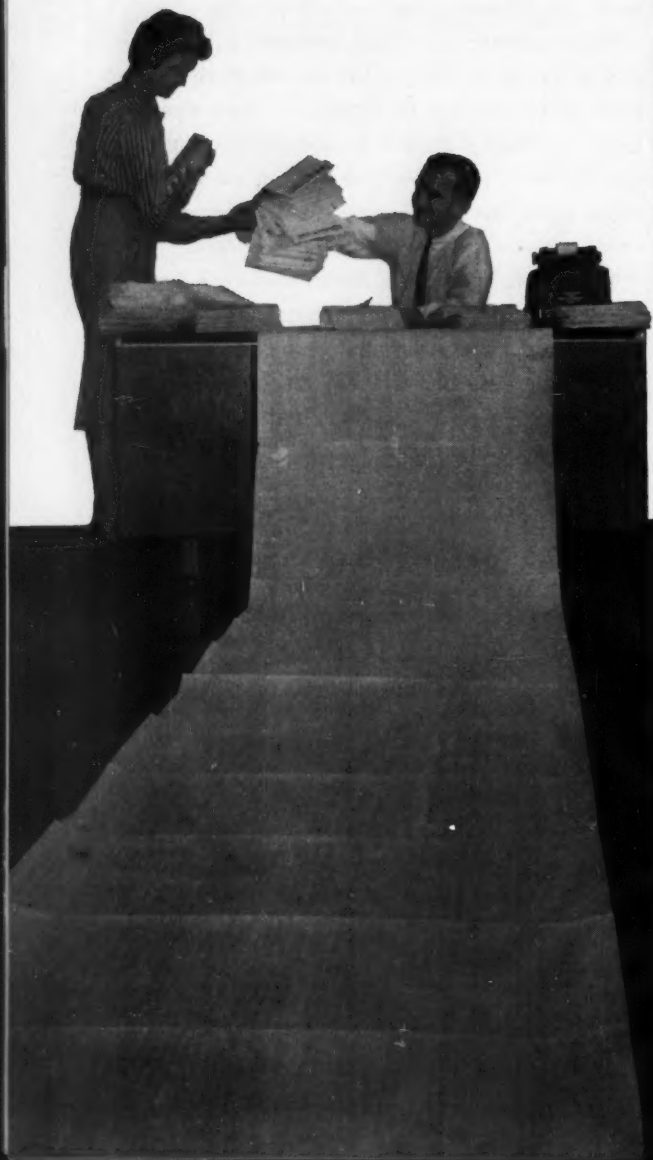
With growth, the total industry pattern constantly changes. This is the day of mergers, and LPG businesses are no exception. As a company grows it changes from a proprietorship to a partnership or to a corporation, or to a subsidiary or operating arm of another corporation. It may eventually become publicly underwritten.

The old ways of doing business change. Dealers no longer can count the change in their pockets at the end of the day to determine how much profit they made. They analyze costs carefully. They figure profits in mills per gallon. They weigh net before taxes against total investment to ascertain whether they are better off in business or in a backyard hammock, letting their money earn more in outside investments.

Then along come new dealers, fighting and clawing to get a foothold in the industry. The scene changes, and so do the actors.

What *are* the characteristics of the industry as it stands today? We think it's time to make a profile of it, to see what it looks like. This is the purpose of the first annual BPN survey of the LPG business.

How the survey was conducted



INFORMATION in this study was obtained with a survey form, sent to a representative sampling of dealer bulk plants throughout the United States. The form consisted of two pages of questions which dealt with four general phases of the dealer's business: his customers and the type of service rendered, his sales of appliances and equipment and his inventories of each, his organization and operations, and his plans for expanded operations and sales in the coming year.

Five-hundred seventy-nine replies were received. Of these, 91 were eliminated in the final tabulation because of the incompleteness of replies. What remained were 488 questionnaires containing a wealth of information indicative of how this cross section of the industry operates.

Using these, the research department established a number of useful relationships including some non-financial operating ratios which can be used as yardsticks against which the individual dealer can gauge his own operating policies.

In the preparation of this study, the totals were analyzed in several different ways to give as complete a picture as possible.

The first article treats of the "composite dealer," an embodiment of industry averages. In striking an average for each category, dealers who failed to respond in that category were eliminated. This produced an across-the-board average undistorted by "half-answers."

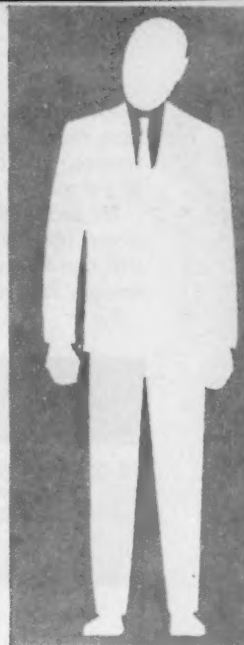
In the "industry profile" article, the intent was to show operating relationships—number of dealers selling househeating, for example, weighed against total number of dealers.

Carrying this interpretation a step farther, we have attempted in the third article to analyze dealers by size and by geographical location. In the case of the former, four subdivisions were made. These were selected on the basis of characteristics that appeared to be common to a majority of the dealers in a particular bracket. Geographical breakdown was made on the basis of the Bureau of Mines "district" system, used for reporting annual product sales.

The two articles that follow in sequence are self-explanatory. One discloses what the respondents expect to spend to build their businesses in 1959. The other shows what they expect to sell in the way of appliances and appurtenant equipment.

The study concludes with a projection of these figures on an industry basis.

Wealth of statistics compiled in the survey is dramatically displayed by BPN research department personnel.



The composite dealer

THE "composite dealer" is an amalgamation of all dealers reporting in the survey. He is neither an "average," a "median," nor a "normal" dealer. He's simply a straight cross-section of the information tabulated from the survey, and he is presented as a comparison against which the dealer can measure his own business.

He's most useful when considered as a compilation of ratios. For example, his capital investment is only useful when it is related to the number of customers he has. Similarly, his storage capacity is only meaningful when it is analyzed in terms of annual turnover, number of customers, and the like.

The composite dealer has 1383 customers, and his per-customer capital investment is \$114. The largest segment of customers is domestic, which total 1203. Nearly half of these—548—use LPG for househeating as well as for the other household applications.

He has a growing roster of commercial customers, currently totaling 73, making this category his No. 2 market. Agricultural customers (excluding farm domestic customers) rank next with 48. Carburetion users add up to 22, and the 1383 total is rounded out with some 38 customers who fall into the "other" category, which includes primarily industrial firms.

The composite dealer's cylinder gas customers outnumber his bulk customers by the narrow margin of 35. He has 709 cylinder gas customers, of which 79,

or slightly more than 11 per cent, are metered.

He has 674 customers on bulk service, of which 73, or slightly less than 11 per cent, are metered.

Meters are slowly gaining ground in a number of areas. Since the figures cited are an across-the-board average, they would not reflect the fact that many dealers have no metered accounts while a few have almost 100 per cent of their customers on meters. In most cases, however (as will be shown subsequently), a dealer who does have metered accounts still has many more that are not metered.

The composite dealer's capital position is strengthened by the fact that he owns only 45 per cent of his customer's tanks, while the other 55 per cent have been sold to the customer.

When he goes to bulk sales, a dealer is likely to concentrate most of his efforts in the larger sizes of tanks. The industry average comes out to the rather unlikely figure of 442 gal. per tank.

Bulk storage on the plant premises averages 35½ gal. per customer, including both bottled and bulk. Sales average 782 gal. per year per customer. These figures can be compared to show that his turnover of inventory averages 22 times per year, or approximately every 2½ weeks.

The composite dealer has almost two service trucks or, more precisely, one for every 717 customers. He has 1.2 cylinder trucks, for an average of

one for every 591 cylinder customers. His fleet of tank trucks totals 2.3, or one for every 293 bulk customers. His tank truck capacity per bulk customer is 7.6 gal.

He has eight and one-half employees, or one for every 162 customers. As an average, four are drivers, one is a salesman, one and a half are office personnel, and slightly more than two are combination

employees. His investment per gallon sold is 14.2 cents.

The composite dealer is, of course, merely a "phantom." A more representative picture of how an LPG dealer operates can be obtained only by more searching analyses of the survey returns. The first such analysis, in the form of an industry profile, begins on the next page.

The Composite Dealer

HIS CUSTOMERS

total 1383, who use an average of 782 gallons of fuel per year



Domestic . . . 1203
nearly half, 548, use LPG for house-heating



Commercial . . . 73



Agricultural . . . 48



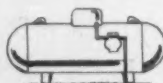
Carburetion . . . 22



Other . . . 38
primarily industrial firms



Cylinder . . . 709
79, or 11%, are metered



Bulk . . . 674
73, or 11% are metered

HIS FACILITIES

are valued at \$114 per customer, or 14.2¢ for every gallon sold.



Service Trucks . . . nearly 2
1 for every 717 customers



Cylinder Trucks . . . 1.2
1 for every 591 customers



Tank Trucks . . . 2.3
1 for every 293 customers



Drivers . . . 4



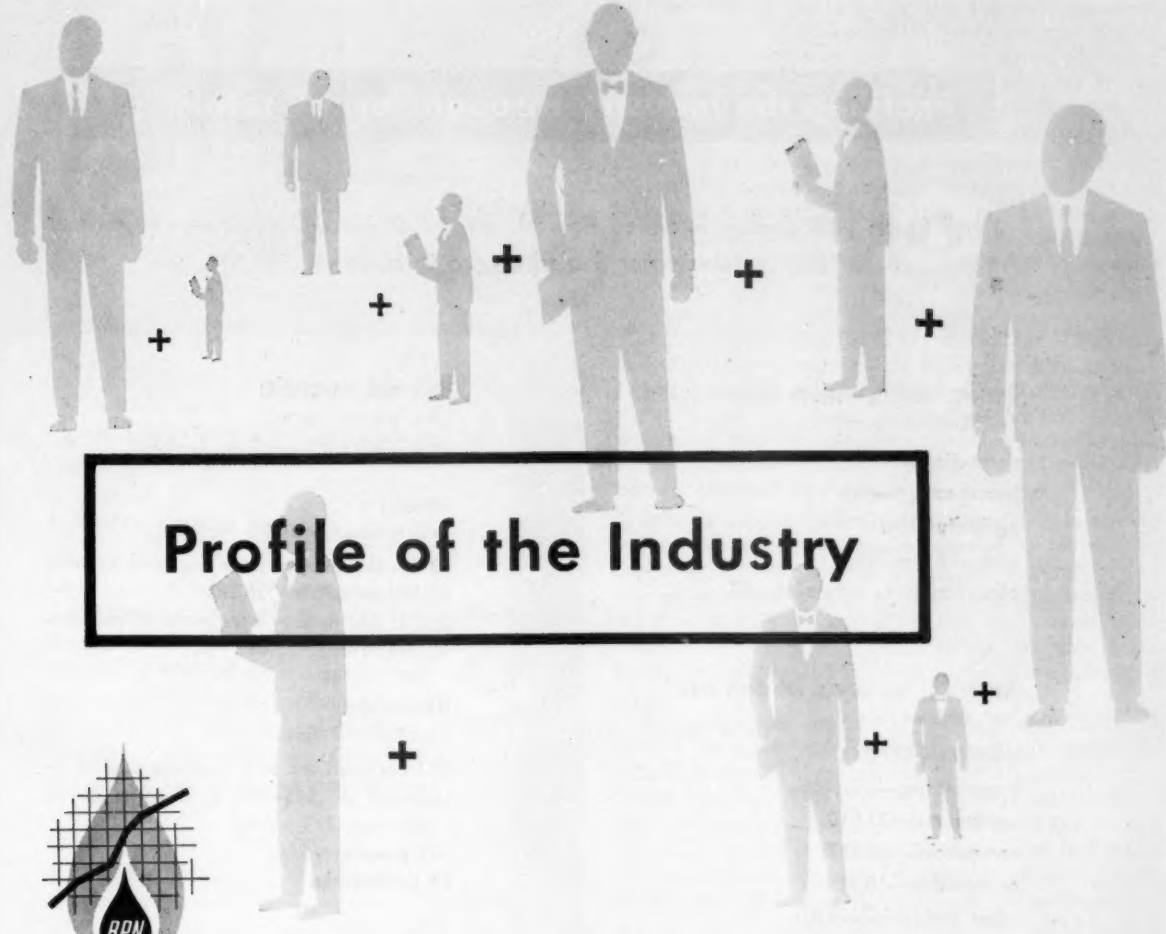
Salesmen . . . 1



Office Personnel . . . 1 1/2



Combination Employees . . . 2
employees total 8 1/2 or 1 for every 162 customers



Profile of the Industry



market study

THE portrait of the composite dealer gives one view of the industry, but a much better picture can be obtained by posing the surveyed dealers en masse. When projected, the total figures of this "group shot" can give an accurate approximation of the entire industry, but they are revealing in themselves, and present an interesting study, an industry profile.

The survey covers 488 dealers, the smallest of which has under 100 customers. The largest has 47,200. As we noticed in our study of the "composite" dealer, the "average" has 1383 customers. But a truer figure is the median, the dealer, who stands in 244th or 245th place in the survey, midway between the largest and the smallest. He has 800 customers.

The grand total of customers represented in the survey is 675,081, which represents about 7 to 8 per cent of the industry's estimated total of about 9 million. The total gallonage sold by surveyed dealers in 1958 was 496,331,816, about 11.4 per cent of all gallonage sold throughout the industry, excluding non-retail uses such as gas manufacture, industrial, and chemical manufacture.

What sort of customers do these dealers have? It is probably safe to assume that all have domestic customers, although this could not be proved from the survey. Four companies gave no totals of customers and 37 others, who serve 35,016 customers, gave no breakdowns of their totals.

Growing diversification of loads was indicated. Three-hundred forty-four of the 447 who furnished breakdowns have commercial customers, 211 have agricultural customers, 356 have carburetion customers, and 57 have customers in "other" categories, principally industrial.

If it were possible to break down gallonages by categories, it is probable that some dealers would show strong percentages in these non-domestic markets. Many non-domestic loads have higher usage than domestic loads. It is a safe assumption that load diversification is excellent for about half the companies.

Diversification is needed to offset the fast increase in househeating customers. At least 88 per cent of all dealers sell gas for househeating. But the actual percentage is probably even higher, for of the 438

Profiling the industry through survey totals

Overall figure: (488 dealers furnished figures): a total of 675,081 customers (a median of 800 customers per dealer) used a total of 496,331,816 gal.

Dealers handling various types of loads:

(447 furnished figures)

domestic—447
househeating—430
agricultural—211
carburetion—256
other (primarily industrial)—57

Number of customers for each load:

(447 furnished figures)

domestic—551,283
househeating—251,765
agricultural—22,010
commercial—34,327
carburetion—10,729
other (industrial)—4,816

Cylinder vs. bulk:

(465 furnished figures)

405 handle cylinders, 16 of them exclusively, for 319,248 customers
415 handle bulk gas, 60 of them exclusively, for 303,518 customers

Bulk tank ownership:

(465 furnished figures)

45.3 per cent owned by dealers

Meters:

(465 furnished figures)

35 of 465 dealers have metered cylinder customers totaling 36,383
217 of 437 dealers have metered bulk customers totaling 33,067

Ownership:

(482 furnished figures)

257 corporations with average capital investment of \$154,444 (1/3 were above average, 2/3 below)
142 proprietorships
83 partnerships

Trucks:

(483 furnished figures)

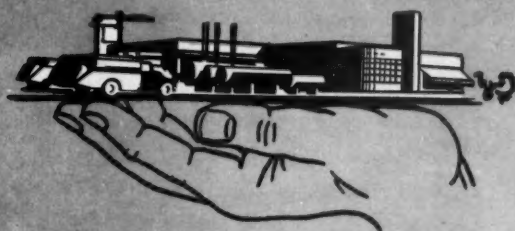
443 dealers have a total of 1193 bulk trucks, or 1 per 23,224 gal. storage capacity
418 dealers have a total of 920 service trucks
287 dealers have a total of 598 cylinder trucks

dealers who answered the question on househeating, only eight stated that they had no househeating customers!

Agricultural loads are generally conceded to be the No. 1 offsetting factor in balancing out the load. However, only 44.7 per cent of the dealers who sell gas for househeating also sell it for agricultural purposes, so it would appear that more than half have a peak-and-valley problem. Year-around loads such as commercial and industrial help too, of course.

Most dealers, including some of the largest, sell gas in cylinders. Of 465 who answered the survey question on this point, 405 have cylinder gas customers. Sixteen serve gas in cylinders only. On the other hand, 415 of the 465 sell gas in bulk—60 of them in bulk only.

Bulk tanks and househeating installations generally go hand in hand. Only nine dealers with househeating loads use cylinders exclusively. Eight others failed to indicate whether they use any tanks. So at least 411



Radio dispatching:

(484 furnished figures)

108 dealers or 22.3 per cent have radio dispatch service

Appliances:

(485 furnished figures)

431 dealers or nearly 90 per cent handle appliances

431 out of 485 sell LPG appliances

152 out of 439 sell electric appliances

445 out of 479 install appliances

460 out of 477 service appliances

296 out of 479 install central heating

390 out of 456 service central heating

Replacement parts inventories

of bulk plant dealers:

(445 furnished figures)

353 stock appliance controls worth \$213,488

234 stock burner equipment worth \$97,951

419 stock copper tubing worth \$232,606

414 stock regulators worth \$213,384

381 stock valves worth \$98,800

303 stock venting and ducting material worth \$162,252

of the 430 dealers having househeating customers serve them in bulk tanks. However, 50 dealers showed a smaller inventory of tanks than househeating customers, so it is probable that a smattering of cylinder househeating customers still remain in many areas.

Customer storage in tanks tends to be fairly generous. By far the largest number of dealers use the 500-gal. size. Some, however, size their tanks according to the market radius—that is, more remote customers have larger storage than the closer ones.

Ownership of the tanks on customers' premises is fairly evenly split between dealer and customer. Where figures were made available, 54.7 per cent of the tanks were owned by the customer and 45.3 per cent by the dealer. Only 43 of the 488 dealers stated they owned no tanks at all. Twenty-three others failed to reply.

It is clear that there is a swing toward metering of accounts among a number of dealers. This is not so apparent among cylinder accounts, however, as it is with bulk. Only 25 indicated they have metered cylinder accounts, and in most cases even these companies still have more unmetered customers than metered.

The best approximation of the percentage of metered bulk accounts among dealers who offer this type of service would be between 10 and 11 per cent, according to the survey. Some of the operators did not tell how many metered customers they have. Those who did supply this breakdown serve 303,518 bulk customers, of which 10.9 per cent are metered.

Reliable reports indicate this swing will continue, but it will be slow. The momentum is increasing, but most dealers are too conservative to make the change in a single leap. A conversion to meters entails a sizeable outlay of capital and some basic changes in operating procedures. It has gained its foothold chiefly on the basis of success through limited trials.

An analysis of ownership shows a definite trend toward incorporation. More than half the companies reporting are now incorporated. While most of the larger ones have this type of legal organization, they have no monopoly on it. If we take \$154,444 as our "average" capital investment figure, we find that there are 64 corporations with investments exceeding that figure, and 127 below it. Sixty-six corporations reporting cannot be classified because they failed to give an investment figure.

On the other hand, there are still some fairly sizeable companies that are not incorporated. Eleven in the \$154,444-plus bracket are proprietorships and an equal number are partnerships.

Another reliable gauge of size is gallonage sold. More than one-third of all dealers answering the survey surpassed the 1-million-gal. mark in 1958. The median figure—that is, the one midway between the largest and the smallest—was 650,000 gal.

In their fleets, most dealers are well equipped with service trucks. More than 85 per cent have at least one service vehicle, and a good many of them have more.

Of the 488 dealers, all but two answered the questions relative to cylinder truck fleets. Two-hundred-eighty-seven have one or more cylinder delivery trucks—most have at least two, the total running to 598 such vehicles.

Nearly all dealers who sell gas in bulk have their own bulk delivery trucks. The ratio of tank truck capacity to bulk storage capacity is 1 to 11½; that is, each dealer responding to this question has 11½ gal. of bulk storage capacity for every gallon of tank truck capacity. In numbers of vehicles, he has one tank truck per 23,224 gal. of bulk storage capacity.

Like customer meters, radio for dispatching is gain-

ing. Today, more than one out of every five companies uses radio in some combination or other. Most of the 22.3 per cent of the dealers who have radio equipment have a single base station and three or four mobile units. Local factors, such as terrain and concentration of customers, however, influence the choice of systems. Thus one dealer with 5000 customers has four base stations while another with only 1800 customers has three.

As we noted in the previous article, the average dealer employs one person for every 162 customers, and half of these are drivers. The smaller companies do not employ full-time salesmen. As a rule, only slightly less than half do. It must be borne in mind, however, that in many companies "combination" personnel handle sales as one of their main duties; furthermore, there are still some one-man companies operating, and in many of these the owner is salesman as well as driver, bookkeeper, and general manager.

Just under 90 per cent of the companies are in the appliance business. Surprisingly, perhaps, more than a third of them sell electrical appliances as well. For the most part, however, they do not sell such appliances as are competitive with the LPG counterpart, nor do most of them carry a large line of electric equipment. A few of them sell only those electric appliances that have been traded in on gas models. In general, the majority carry only such items as electric refrigerators, window air conditioners, and possibly radios, television, and the like.

Most of the dealers who sell appliances also stock them: of 431 "merchandising" dealers, only 15 or 3.5 per cent do not. An additional 34 sell appliances but furnished no inventory value. Using the figures available, we found that the average inventory of 382 dealers is \$8651.

Practically all dealers install and service appliances, even if they do not sell them. This is sound operating practice in view of the importance, to the dealer as well as the customer, of equipment that functions efficiently. This is particularly noticeable in the field of central heating equipment, where 85.5 per cent of the dealers service such installations and 61.6 per cent install them as well.

This emphasis on servicing appliances is evidenced in the size of replacement parts inventories carried by dealers. The 353 bulk plant dealers who answered the question stock an aggregate \$213,488 of appliance controls. Only 84 do not stock them. Fifty-one do carry a line but placed no inventory value on it.

Copper tubing is another popular stock item. Four-hundred-sixty-eight dealers carry it in inventory while only 20 do not. Four-hundred-nineteen assigned an aggregate inventory value of \$232,606 on their tubing.

Regulator inventories are about on a par with those of appliance controls and tubing. Of 488 dealers, 464 keep regulators in stock. An inventory breakdown by 414 shows an aggregate value of \$213,384.

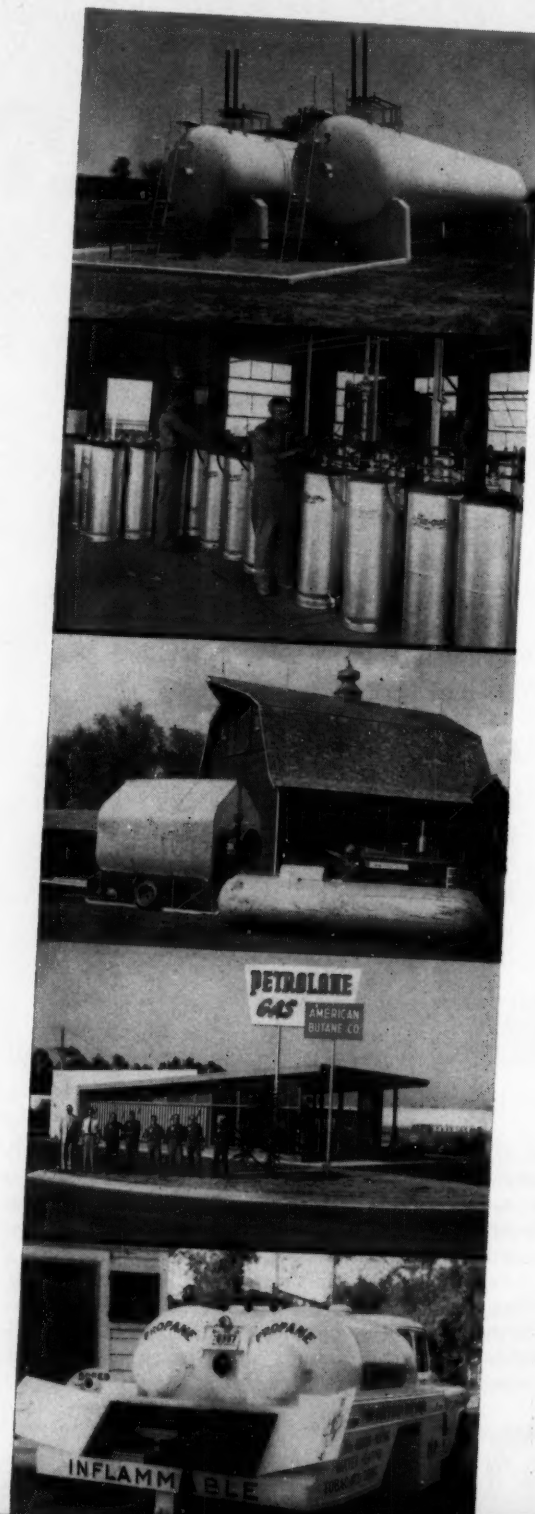
A somewhat smaller number, 433, stock valves, but dollarwise the aggregate inventory is less than half that of regulators. The 381 dealers who furnished a tabulation showed a figure of \$98,800.

In numbers of dealers, venting and duct materials ranked next, with 356 dealers stocking these items,

and 303 providing inventory figures totaling \$162,252.

Burners of all sort—industrial, agricultural, etc.—are carried by 281 dealers. The 234 who gave a breakdown carry, together, \$97,951 worth.

This, then, is a broad view of the industry, as reflected in the survey. It's a heterogeneous industry that divides in many ways into many different classifications. For a closer look at its character, we make two broad breakdowns, by size and by geographical division.



"Stratifying"

the industry

A REMARKABLE similarity exists among the various LPG distributor-dealers in the matter of operating policies, even when they are segregated as to size. There is little to choose between the larger companies and the very small in the matter of overall operations. Only on a few relatively minor points are any real differences evident.

One might naturally expect that the larger companies with keener management would have: deepest market penetration, greatest diversification of loads, largest ratio of bulk-to-bottled installations, highest inventory turnover, best selling and servicing organizations, and largest percentage of metered customers. It's not necessarily so. In some respects they do excell, but in others the small fellow seems to have a distinct edge.

Consider diversification, for example. Here the smallest companies are undisputably ahead of their bigger brothers. In househeating, which is a good measure of market penetration, they also lead. Fur-

STRATA STUDY

By Dealer Size

	C L A S S			
	1	2	3	4
	(Over 2500 cust.)	(1000 to 2500 cust.)	(500 to 1000 cust.)	(Under 500 cust.)
Customer Breakdown (Load):				
domestic	92.0%	87.5%	85.3%	81.0%
househeating	35.0	52.0	64.0	77.0
commercial	5.0	6.5	5.6	4.7
agricultural	2.3	3.5	5.1	9.6
carburetion	1.5	1.5	2.4	5.0
other (industrial)	0.5	0.8	1.3	0.1
Customer Breakdown (Cylinders vs. Bulk):				
cylinder	54.0%	48.5%	42.4%	39.5%
portion of cylinder metered	9.0	3.8	0.3	0.1
bulk	46.0	51.5	57.5	60.5
portion of bulk metered	6.0	4.6	6.7	3.7
Number of Dealers				
selling appliances	93.0%	93.5%	89.0%	78.0%
servicing and installing appliances	96.0	95.5	94.0	69.0
making carburetion conversions	70.0	68.6	72.0	59.0
using radio dispatch	54.0	25.5	16.0	13.0

thermore, their bulk-to-bottled ratio is also higher.

In the other categories, the larger companies have the edge, but the differences are not always too clear-cut.

In order to make the analysis by size, we set up four arbitrary categories to provide a fair numerical balance. The largest companies, those with 2500 or more customers, were placed in Class 1, the smallest, numerically, with 55 companies. Class 2, companies with between 1000 and 2499 customers, covers 137. Class 3, companies with 500 to 999 customers, is the largest, having 162. Class 4, companies with less than 500 customers, has 129 dealers.

Surprisingly, in the matter of load diversification, the percentage grows progressively from Class 1 to Class 4. Of Class 1's customers, 92 per cent are domestic, and of these 35 per cent use gas for house-heating. Agricultural customers make up 2.3 per cent of the total, commercial 5 per cent, carburetion $1\frac{1}{2}$ per cent, industrial about 1 per cent. In succeeding classes, domestic customers decrease proportionately to 87½ per cent, 85.3 per cent, and 81 per cent. Commercial customers remain fairly constant, within a percentage point or two of 5 per cent, as do industrial. Both agricultural customers and carburetion customers increase sharply among the smaller dealers. Class 2 has 3½ per cent of its load in agricultural customers, and 1½ per cent in carburetion customers. Class 3's agricultural customers are 5.1 per cent of its total, carburetion, 2.4 per cent. In Class 4, agricultural customers soar to 9.6 per cent, and carburetion customers increase to 5 per cent.

In market penetration, the smallest dealers also come off best. Their househeating load is a much higher percentage of their total domestic load than that of the largest companies. In Class 1, only 35 per cent of all domestic customers use gas for househeating, but in Class 2 the percentage rises to 52 per cent, in Class 3 it is 64 per cent, and in Class 4 it soars to 77 per cent.

Several plausible explanations for these differences in both diversification and penetration come to mind. The larger dealers are located, for the most part, closer to larger population areas, where the fuel oil dealer is a competitive factor. They must battle harder for their share of the househeating market. For the same reason, smaller dealers have a larger agricultural market to exploit and carburetion conversions (tractors, particularly) go hand in hand with this.

Their relationships with their customers are also on a more personal basis, which increases their

chances to sell more uses to a single user. Also, they may be forced by their larger competition into scratching more deeply on a more limited market population.

Differences in load characteristics among various size classes are reflected in the larger percentages of bulk customers among the smaller dealers. Class 1 customers are 54 per cent on cylinders and 46 per cent on bulk. Among Class 2 companies, bulk outstrips cylinders, 51.5 per cent to 48.5 per cent. In Class 3, 57.5 per cent are on bulk, and in Class 4 the bulk percentage hits its peak, 61 per cent.

As might be expected, since the largest dealers are the best capitalized, the highest percentage of metered installations is in Class 1. Nine per cent of their customers, roughly 1/6 of their cylinder customers, are on metered cylinder service, while 6 per cent of their customers, or ¼ of their total bulk customers, are on metered tank service. In Class 2, 3.8 per cent of all customers receive metered cylinder service, 4.6 per cent, metered bulk service. In Classes 3 and 4, metered cylinder service is negligible, but metered bulk service is a respectable 6.7 per cent and 3.7 per cent, respectively.

This tends to show a definite interest in metering throughout the entire range of companies, from the largest to the smallest. The market is there, up and down the line.

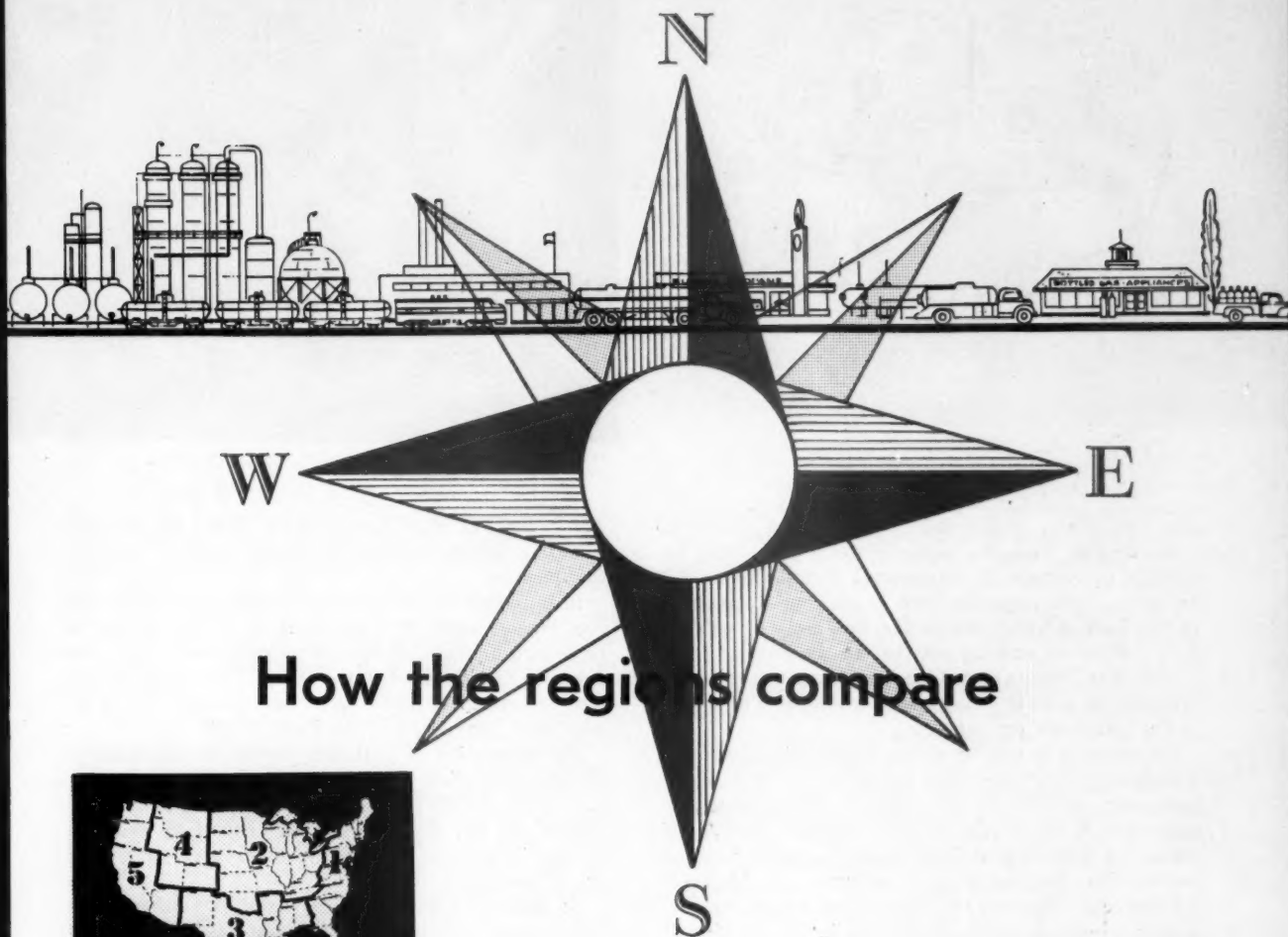
Also as might be expected, the largest companies are the strongest in merchandising appliances. In Classes 1 and 2, more than 93 per cent actively sell appliances. The percentage drops only slightly, to 89 per cent, in Class 3, while the smallest dealers, those in Class 4, have the smallest merchandising representation, 78 per cent.

Since nearly all dealers who sell appliances (plus many who don't) also install and service them, it follows that the percentages of dealers who perform this work are highest in the larger classifications. In Class 1, 96 per cent service and install; in Class 2, 95½ per cent; in Class 3, 94 per cent. The only noticeable drop is in Class 4, where only 69 per cent service and install.

If the larger dealers don't show as large a percentage of carburetion customers, they do match their smaller brothers in making conversions. There is little variation in this among the top three classes: 70 per cent in Class 1, 68.6 per cent in Class 2, and 72 per cent in Class 3. Class 4 has the largest percentage of carburetion customers, but the fewest dealers making conversions, 59 per cent.

The use of radio dispatching offers few surprises when analyzed on the basis of dealer size. In Class 1, 54 per cent of the dealers use it, but the percentage drops off in almost geometric progression to 25½ per cent in Class 2, 16 per cent in Class 3, and 13 per cent in Class 4. Aside from the high percentages among the larger classes of dealers, perhaps the most remarkable aspect of radio usage is the way the small dealers are taking to it. Considering that Class 4 dealers have an average of only 273 customers, the 13 per cent figure looms rather large. It certainly indicates that even the smallest dealers want to be progressive and are diligently searching for ways to improve service and costs.





DIFFERENCES between various segments of the industry become much more apparent when dealers are classified geographically. The Eastern dealer, the Southern dealer and the Rocky Mountain dealer are almost "different breeds" in some respects. To examine this situation more closely, we divided the survey dealers into the five districts devised by the Bureau of Mines: the Eastern Seaboard, the South, the Midwest, the Rocky Mountain states, and the Far West.

Among the rather sharp differences discovered between the districts were these:

The South has the highest percentage of house-heating customers to total domestic customers and the Eastern Seaboard has by far the lowest.

Per-customer usage in the East is less than one-third that in the South. However, the Rocky Mountain states lead all districts in this category.

The East is the highest in cylinder deliveries (vs. bulk) while the South is the lowest.

Metered installations and radio dispatching have caught on more quickly in the East and South than in the other districts, although radio is catching on in the Midwest.

Studying the figures in more detail, we find that the usage per customer ranges from a surprising 1299 gal. in the sparsely-settled Rocky Mountain region down to 288 gal. per customer in the East. The South and Midwest are nearly even, with 935 and 917 gal. per customer, respectively. The Far West lags somewhat with a respectable 793. It should be pointed out that all these figures err on the side of conservatism: actual usage is somewhat higher than shown, since not all dealers responding in the survey furnished gallonage figures. However, the margin of error is small.

In househeating, the South shows a very high saturation, 77 per cent of all domestic customers using gas for this purpose. The Rockies, with the highest per-customer usage, are next with 66 per cent. In the Far West, saturation eases off to 60 per cent, and in the East, it drops to 25 per cent. However, even in the East most dealers do have *some* househeating customers, 65 out of the 75 participating in the survey.

There is not much to choose among the districts, regarding percentage of domestic to total customers. All hover around the 90 per cent mark, except for



the Far West, which has 79 per cent domestic.

In the Far West, the domestic figure is reduced by a high percentage of commercial installations, 12.3 per cent. This compares with 7 per cent commercial in the East, 5.5 per cent in the Rockies, 4.6 per cent in the Midwest, and 2.4 per cent in the South.

The Far West's domestic percentage is further trimmed by a 7 per cent agricultural load. The South is next with 5.3 per cent.

Carburetion is still not a very heavy load anywhere, customerwise. In the East only 0.5 per cent of all customers use LPG for this purpose. The highest percentage is in the South, where it accounts for 3.6 per cent. The Rockies have 3 per cent of all customers on carburetion; the Far West, 1 per cent; the Midwest, 2.2 per cent. However, in many cases usage per customer is high, so in the South and in the Rockies, it can be considered a particularly valuable load.

More significant, however, is the even distribution of dealers who serve carburetion customers. In the Midwest, 152 out of 247 dealers reporting do; in the South, it's 35 out of 90; in the East, 35 out of 75;

and in the Far West, 17 out of 34. These are all conservative figures because 25 dealers did not answer the question.

In bulk service, the South is closely rivalled by the Far West. While 87.7 per cent of all customers in Dixie are on bulk service as opposed to bottled, the figure is 82.3 per cent in the West. The Rocky Mountain states report 69 per cent bulk service; the Midwest, 46.2 per cent; and the East, 37 per cent.

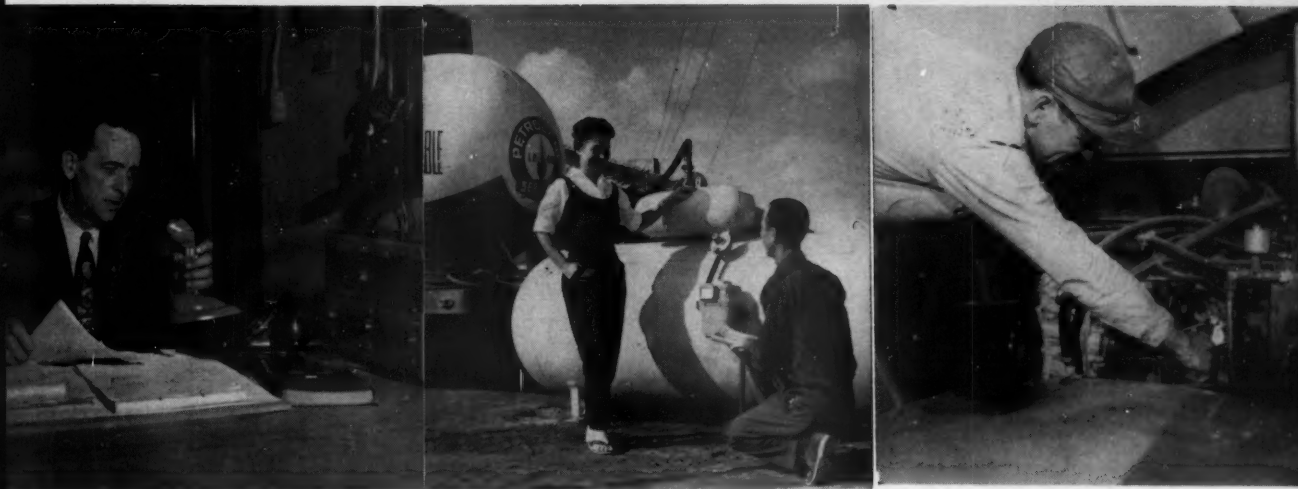
The saturation of customer meters in the East is exceptionally high with 23 per cent of all cylinder customers and 22.3 per cent of all bulk customers on meters. In the Midwest, 4.1 per cent of all cylinder service is metered, but in the other areas, it's only one or two per cent.

On metered bulk service, however, two other areas make a good showing. The Midwest has 11.4 per cent of its bulk customers on metered service and the Far West has 8.7 per cent.

In appliance sales, installation, and servicing, the figures across the country are quite uniform. In the East, 72 of 74 dealers answering the question sell

geographic comparison of dealers

U.S. Bureau of Mines Industry Divisions	Dealers reporting	Gallons per customer	Percentage of domestic customers to total customers	Percentage of house heating customers to domestic customers	Percentage of commercial customers to total customers	Percentage of Agricultural customers to total customers	Percentage of carburetion customers to total customers
East	75	288	90.3%	25.0%	7.0%	0.9%	0.5%
Mid-West	247	917	89.0	49.0	4.6	3.4	2.2
South	90	935	90.0	77.0	2.4	5.3	3.6
Rockies	27	1299	89.0	66.0	5.5	1.7	3.0
Far West	34	793	79.0	60.0	12.3	7.0	1.0



appliances. In the Rockies, the figures are 24 out of 26 replies. Similarly, in both the South and the Far West, the ratio is 90 per cent or better. It's only in the Midwest that any drop is shown, but it's only to 86 per cent.

Percentage figures for installation and servicing are almost identical, region by region, with sales percentages.

Happily, dealers in every part of the country appear to be getting into central heating installation and servicing. In the East, even with its low house-heating saturation, more than half the dealers reporting, 39, install central heating and 61 of them service it. Every other district does as well or better. In the Midwest, 145 of 247 dealers install, 200 service. In the South, where milder climates demand a smaller ratio of central heating to other types of heating units, 46 of 90 install and 64 service. In the Rockies, 20 of 27 install and 24 service while in the Far West, 20 of 34 install and 28 service.

As noted earlier, most dealers have some carburetion customers, but the percentage is small. Sur-

prisingly, however, a very large number of dealers make their own conversions, even in the areas where the customer ratio is smallest. In the East, 39 out of 75 dealers reporting make conversions; in the Midwest, it's 200 out of 247; in the South, 73 out of 90; in the Rockies, 22 out of 27; and in the Far West, 27 out of 34.

To complete the geographical breakdown, one more analysis was made, partly as a test. The distribution of meter sales leaned so heavily toward the East that one was led to wonder if it wasn't partly because most of the sales efforts were concentrated there. To double-check this apparently highly progressive nature of the East, a breakdown on two-way radio usage was made. The results did not confirm the suspicion but it didn't dispel it either.

Out of 75 Eastern dealers reporting, 26 have two-way radio while in the South, 33 out of 90 have it. In the lush Midwest market only 41 out of 247 have radio; in the growing Far West market, only 5 of 34 have it; and in the sparsely-settled Rockies, where it's many a mile between sales, only 2 out of 34 do!

Percentage of cylinder customers to total customers	Percentage of metered cylinders to total cylinders	Percentage of bulk customers to total customers	Percentage of metered bulk to total bulk	Number of dealers selling LPG appliances	Number of dealers installing appliances	Number of dealers servicing appliances	Number of dealers installing central heating	Number of dealers servicing central heating	Number of dealers making carburetor conversions	Number of dealers using radio dispatch
63.0%	23.0%	37.0%	22.3%	72	72	72	39	61	39	26
53.8	4.1	46.2	11.4	212	218	229	145	200	150	41
12.3	1.0	87.7	3.3	79	83	87	46	64	73	33
31.0	0.0	69.0	0.5	24	25	25	20	24	22	2
17.7	1.5	82.3	8.7	28	29	30	20	28	27	5



What the industry will sell

ALMOST to a man, LPG dealers are optimistic over prospects for this year, now four months along. Not only do they expect to sell more gas (that's a foregone conclusion for they sell more in good years and bad) but they also expect substantial sales gains in appliances and almost every piece of equipment.

While some dealers gave no breakdowns for either year, at least half of them gave last year's figures and a third or more were willing to estimate sales for 1959 as well. In nearly every section of the country, sales of all basic appliances are due for an increase of anywhere from 20 to 50 per cent.

Consider ranges, the No. 1 appliance. Nationwide, 229 dealers last year reported aggregate sales of \$1,671,315, and an additional 35 dealers reported sales of 1623 units. In 1959, 180 dealers forecast sales totaling \$1,691,345, and 35 dealers forecast unit sales of 1786. Note that in both cases, fewer dealers expect to sell more ranges. The balance of the companies are not intending to abandon appliance selling: they merely did not fix a 1959 figure. What do these figures mean in terms of industry-wide 1959 sales? If we assume that all dealers will enjoy the same sales increases as the ones who replied, we must conclude that nationwide range sales will increase by more than 23 per cent over last year. We might carry this a step farther. GAMA tells us that last year's range

sales totaled 379,300. Applying the 23 per cent, we estimate that industry sales for this year will be 466,539.

We find a parallel situation in water heaters. Two-hundred-thirty-two dealers last year sold \$814,369 worth of water heaters, and 48 others sold 2843 units. In the current year, 190 dealers expect to sell an equal amount in dollars (\$814,595) and 39 an equal number of units (2834). Applying the same estimates, we find that water heater sales should rise at least 21 per cent, bringing anticipated nationwide sales to 352,336 as compared with 1958's 288,800.

Sales of clothes dryers are also due for a big jump. Thirty-eight dealers reported unit sales of 329 models in 1958, and 35 forecast sales of 459 for 1959. One-hundred-fifty-five reported 1958 sales of \$262,886 and 131 forecast \$335,615 in sales for 1959. Here we emerge with a forecast of a 51 per cent increase. If that sounds fantastic, consider some statistics recently compiled by the American Home Laundry Manufacturers Association. For the first two months of 1959, says AHLMA, all gas dryer sales were up 49 per cent over the corresponding months in 1958. In February alone, they were up 75 per cent! Here's another encouraging survey fact: More than two-thirds of all dealers selling gas ranges and water heaters also sell clothes dryers.

WHAT THE INDUSTRY WILL SELL NATIONALLY—APPLIANCES

	SALES IN DOLLARS					SALES IN UNITS				
	1958 Dealers Reporting	1958 Sales	1959 Dealers Forecasting	1959 Projected Sales	Percentage of Projected Gain or Loss	1958 Dealers Reporting	1958 Sales	1959 Dealers Forecasting	1959 Projected Sales	Percentage of Projected Gain or Loss
RANGES	220	\$1,671,300	180	\$1,691,300	+23.7%	39	1,623	35	1,786	+22.5%
WATER HEATERS	232	\$814,400	190	\$814,800	+21.0%	48	2,843	39	2,834	+22.6%
CLOTHES DRYERS	155	\$262,900	131	\$335,600	+51.0%	38	329	35	459	+51.3%
INCINERATORS	39	\$16,100	37	\$21,000	+47.7%	9	37	8	78	+137.0%
UNIT HEATERS	138	\$319,100	113	\$321,800	+23.0%	32	236	24	192	+8.0%
COMMERCIAL COOKING	78	\$234,700	58	\$216,800	+24.0%	13	39	9	34	+25.6%

WHAT THE INDUSTRY WILL SELL REGIONALLY—HEATING APPLIANCES AND EQUIPMENT

AREA	SALES IN DOLLARS					SALES IN UNITS				
	1958		1959		Percentage of Projected Gain or Loss	1958		1959		Percentage of Projected Gain or Loss
	Dealers Reporting	Sales	Dealers Forecasting	Projected Sales		Dealers Reporting	Sales	Dealers Forecasting	Projected Sales	
East	39	\$299,700	38	\$298,200	+15%	7	908	4	800	*
Midwest	113	\$504,900	94	\$485,100	+15%	27	582	21	586	+20%
South	40	\$193,800	30	\$126,200	-14%	11	1082	9	1125	+23%
Rockies	14	\$33,200	12	\$36,700	+29%	3	57	3	66	*
Far West	13	\$42,400	11	\$43,000	+20%	3	120	3	120	*
East	22	\$72,700	20	\$73,000	+10%	8	121	5	166	+66.5%
Midwest	71	\$86,600	55	\$87,900	+30%	22	130	18	166	+76%
South	23	\$33,900	18	\$31,900	+31%	6	41	5	41	+25%
Rockies	13	\$12,700	10	\$14,700	+50%	3	19	3	29	*
Far West	13	\$33,800	11	\$36,700	+25%	3	101	3	101	*
East	25	\$41,700	20	\$35,500	+9%	8	48	5	46	+53%
Midwest	82	\$146,800	63	\$138,200	+21%	19	138	14	182	+48%
South	16	\$45,600	12	\$47,600	+30%	3	90	4	102	*
Rockies	8	\$9,500	7	\$13,000	+48%	1	8	2	6	*
Far West	10	\$13,500	8	\$10,500	-25%	3	32	3	32	*
East	28	\$161,200	25	\$202,000	+31%	5	113	4	182	*
Midwest	84	\$947,200	69	\$931,700	+18%	16	126	13	174	+53%
South	22	\$112,900	14	\$116,700	+62%	5	43	3	80	*
Rockies	10	\$58,500	10	\$69,500	+60%	3	28	3	47	*
Far West	9	\$40,600	6	\$38,500	+48%	2	8	2	8	*
East	11	\$43,900	10	\$48,600	+10%	3	4	0	0	*
Midwest	49	\$70,600	44	\$88,200	+40%	12	66	11	109	+79%
South	19	\$22,700	8	\$43,000	+137%	1	6	1	15	*
Rockies	8	\$5,200	7	\$5,500	+19%	1	8	2	22	*
Far West	6	\$9,900	6	\$13,900	+40%	—	—	—	—	—
East	16	\$8,100	11	\$6,200	+12%	1	3	0	0	*
Midwest	43	\$27,000	37	\$47,000	+82%	7	17	6	25	+70%
South	8	\$5,800	6	\$3,000	-48%	1	16	1	15	*
Rockies	7	\$3,800	8	\$1,500	-44%	2	20	2	20	*
Far West	7	\$5,300	6	\$20,100	+460%	1	10	1	15	*
East	12	\$34,100	12	\$44,200	+30%	3	38	2	27	*
Midwest	70	\$69,500	65	\$69,500	+14%	10	51	9	17	*
South	36	\$143,600	29	\$160,900	+36%	9	344	9	368	+70%
Rockies	8	\$9,100	8	\$10,300	+28%	2	7	2	8	*
Far West	8	\$22,900	7	\$30,800	+52%	1	16	1	10	*

* = Inconclusive.

Incinerator sales prospects are even better. If the figures given in the survey are an accurate indication, sales will increase at least 147 per cent! According to GAMA, LPG models totaled 4400 last year, so this year we can expect the entire industry to sell at least 6499, possibly as many as 9000!

Both unit heaters and commercial cooking will also enjoy substantial sales increases, around 20 per cent and 24 per cent, respectively.

Figures on sales of refrigerators are inconclusive because of the transition period through which the industry is passing. The situation is expected to change for the better by 1960.

Because preferences for heating equipment vary somewhat throughout the United States, we divided the nation into the five Bureau of Mines districts before analyzing sales of each of the domestic heating appliances. Here are some of our findings: room heaters are most popular in the East, although they enjoy good acceptance everywhere; the No. 1 market for wall heaters appears to be the Pacific Coast; and floor furnaces have their best acceptance today in the South, while central heating is most at home in the Midwest.

Sales of room heaters across the country will increase about 15 per cent in 1959. Wall furnaces will make quite a spurt in the Midwest, gaining well over 30 per cent. Floor furnaces should score their biggest gains in the South with increases running to about 35 per cent, but they are due for almost equally good gains in the Midwest and the East. According to our computations, it's going to be central heating that will really carry the ball in 1959. Every one of the five districts is enthusiastic over prospects in this category. The most conservative estimates place gains at 31 per cent in the East, 19 per cent in the Midwest, 62 per cent in the South, 68 per cent in the Rockies, and a break-even on the Pacific Coast. These figures are derived from dealers reporting in dollar sales. If we were to use unit sales figures, the percentages would soar in every district, but unit figures form too small a sample to be valid.

The relatively small samples in the agricultural and carburetion categories are inconclusive, but indicate that the South still leads in both uses and in 1959 expects to widen its lead in agricultural. The Far West should score the greatest gains in carburetion uses.

What They'll Spend for Equipment in '59

Equipment	Number of Dealers Who'll Buy Number of Units They'll Buy	East (75 dealers reporting)	Midwest (247 dealers reporting)	South (90 dealers reporting)	Rockies (27 dealers reporting)	Far West (34 dealers reporting)	U. S. Total (473 dealers)
Service Trucks	dealers	33	88	37	11	11	180
	units	50	105	47	12	14	268
Bulk Trucks	dealers	23	103	47	10	11	194
	units	25	130	77	10	17	249
Transports	dealers	2	13	7	0	0	22
	units	2	16	9	0	0	28
Cars	dealers	17	49	21	4	9	100
	units	24	49	24	4	10	110
Bulk Tanks	dealers	49	194	59	21	23	346
	units	6,674	14,234	4,014	1,294	2,188	28,404
Meters	dealers	29	188	12	11	13	153
	units	3,576	3,639	519	337	806	8,817
Cylinders	dealers	34	111	35	0	3	183
	units	8,925	24,588	1,912	0	350	35,775
Storage	dealers	19	48	15	6	8	96
	thousands of gals.	494	1,308	245	55	139.5	2,241.5
Pumps & Comp.	dealers	19	54	22	10	9	114
	units	31	99	39	10	18	188
Radio Equipment	dealers	21	41	21	3	5	91

THE sales upturn anticipated in 1959 will mean more equipment will be needed by many dealers. More cylinders will be needed to serve the small-use customer, more bulk tanks for the bigger ones. This, in turn, means more storage, more bulk trucks, more pumps and compressors, and more service trucks.

It also means more radio equipment for dealers attempting to get more efficiency into their operations, more customer meters for those converting to this type of service, more office equipment for some, and even more automobiles for many.

Almost three-fourths of the dealers will be buying customer bulk tanks. Two-fifths of them will buy bulk trucks to fill these tanks. Three-eighths of the dealers will need cylinders in volume and an almost equal number will buy trucks to carry them. One-fourth of them will buy pumps and/or compressors and one-fifth, some sort of two-way radio equipment. Nearly one-third of the dealers will buy customer meters.

A lion's share of all purchases will be made in the Midwest, but this is to be expected, since almost half the dealers responding to the survey are in this area. The percentages of dealers who will purchase the various types of equipment do not vary too greatly from district to district.

One of the few variations is radio equipment, which is strongest in the East. Twenty-one of the 75 East-

ern dealers responding expect to buy anything from additional mobile sets to a complete system.

The percentage of dealers who will buy service trucks is also highest in the East. Thirty-three out of 75 expect to buy a total of 50 service vehicles.

The best market for bulk trucks appears to be the South, where 47 out of 90 dealers report they will buy 77 such vehicles.

For bulk storage, the East will lead the country by a slight percentage with 19 dealers out of 75 reporting they expect to add 494,000 gal. of storage. One-fifth of the Midwest's dealers will add 1,308,000 gal. and almost one-fourth the respondents from the West, 8 of 34, will add 139,500 gal. All together, 96 of the 488 dealers will buy an aggregate of 2,241,500 gal. of storage, or an average of 23,369 gal. each. ■

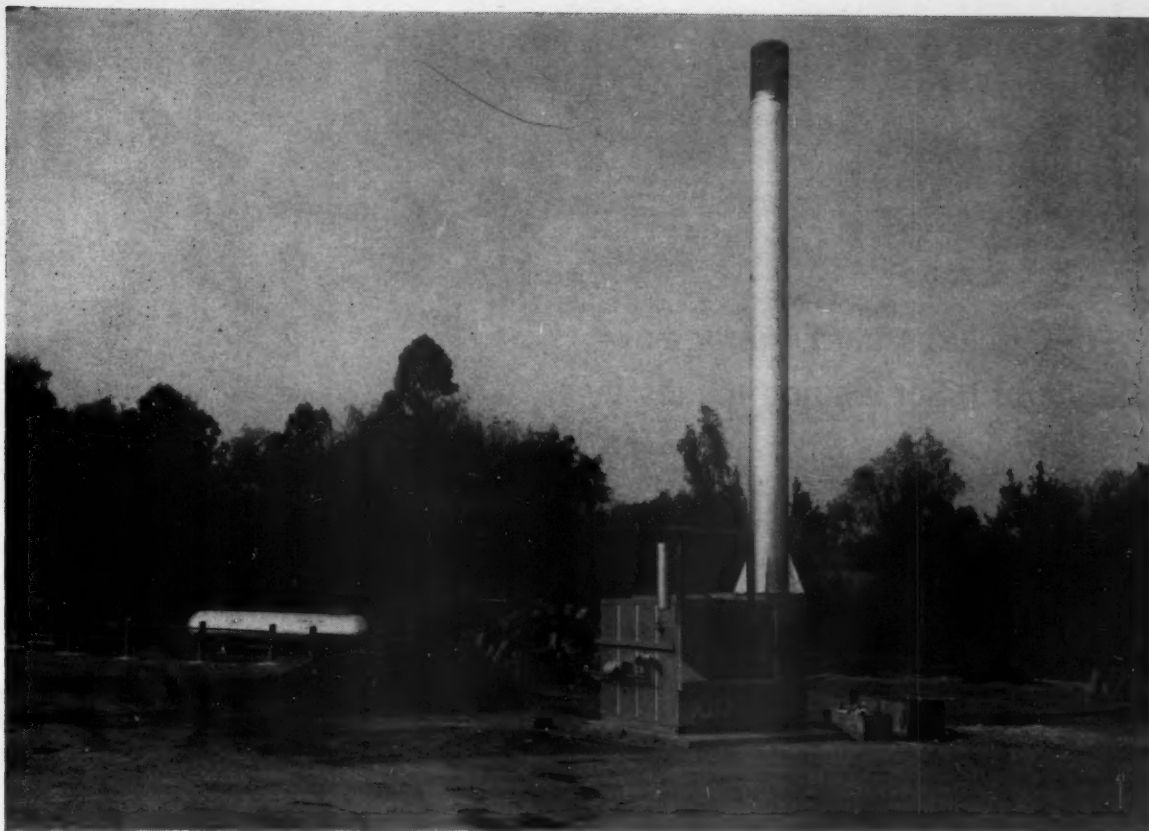
Reprints of this first BPN market study are available in reasonable quantities without charge.

Write Dept. M., BUTANE-PROPANE News, 198 S. Alvarado, Los Angeles 57, Calif.



market study

BUTANE-PROPANE News



A 1000 gal. tank serves LPG to this 500 lb per hour incinerator at Los Angeles' Hillcrest Country Club.

There's a big gas load in LPG-fired incinerators

RUBBISH disposal is a major consideration in the operation of every commercial and industrial building whether it is a restaurant or a school, a hospital or a supermarket. The problem posed is how to get rid of a continuing supply of rubbish in the cleanest manner, with the least amount of inconvenience, and at the lowest cost. The best solution in most cases is a gas-fired multiple combustion chamber commercial-industrial incinerator.

The market for modern commercial-industrial incineration is prac-

tically untouched. Incineration is usually accomplished in either the dirty and dangerous open fire or the outmoded trash burner. Or rubbish is stored on the premises and periodically hauled away.

There is no lack of rubbish. Waste engineers estimate that a restaurant must dispose of 2 lb of rubbish per meal served. A supermarket accumulates 9 lb per 100 sq ft of floor space per day. Trailer camps have 6 to 10 lb per trailer per day. And an elementary school must find some way to get rid of 10

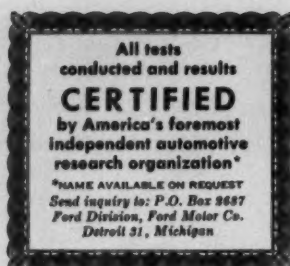
lb of waste per room per day.

A listing of 27 potential types of customers for commercial-industrial incineration, together with the estimated waste production rates of each, is provided in *Table 1*.

The modern destructor

The science of incineration has made huge strides during the past few years. Today, rubbish disposed of through combustion no longer has to smolder, smoke, and stink all day in a container while a man stands by to alternately feed new

NOW!
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'59 Ford Pickups beat average mileage of other leading makes by 25.2% in Economy Showdown U.S.A.

Here at last is certified proof of the differences in gas mileage between six-cylinder pickups . . . evidence that you can use in your operation.

It was compiled by America's foremost independent automotive research firm after testing 1959 six-cylinder, ½-ton pickups of the six leading makes. All trucks were bought from dealers—just as you would.

The tests paralleled every kind of driving — high speeds and low, open highways and city traffic, even door-to-door delivery. And in every test, '59 Ford Sixes delivered more miles per gallon than any other make. Here are the actual percentages:

HOW NEW '59 SIXES RATE IN GAS MILEAGE						
'59 FORD SIXES GIVE	25.2%	31.1%	9.6%	42.6%	22.0%	25.2%
	more miles per gallon than Make "C"	more miles per gallon than Make "J"	more miles per gallon than Make "G"	more miles per gallon than Make "D"	more miles per gallon than Make "S"	more miles per gallon than the average of all makes

Taken together, Ford got 25.2% more miles per gallon than the average of all other leading pickups!

What's the secret of Ford's economy? First, of all pickup sixes, only the Ford Six has modern Short Stroke design which reduces engine friction and thus requires less fuel. Second, to this modern engine, Ford has added a new economy carburetor to meter fuel more precisely in both high- and low-speed ranges.

See your Ford Dealer for the complete report of Economy Showdown U.S.A. Visit him today and get the whole story firsthand.

NOW! DURING DIVIDEND DAYS AT YOUR FORD DEALER'S...

Go FORDWARD for savings



C. H. Gardner
Manager
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says:



"Low operating cost keeps us sold on the Ford Six!"

"Gas, oil, tires, maintenance and repairs for our F-350's run us only 8.93 cents per mile.

"Our seventeen Ford Trucks, equipped with 6-cylinder engines, ran 83,487 miles in 1958 with a total operating cost of \$7457.04. That's only 8.93 cents a mile and includes all our Ford Truck expenses except depreciation and insurance.

"We carry 28 cylinders on our F-350's which means a peak load of nearly 5,000

pounds. They average $8\frac{1}{2}$ to 9 miles per gallon which is very good when you consider that each truck makes about 50 deliveries a day with 85% of them in the rural areas. Oil consumption is practically nil since we change oil every 1,500 miles.

"Another reason why we keep on buying Ford Sixes is that they cost less to maintain. We get the horsepower we need at low rpm which not only means longer engine life, but it's much easier on the clutch. We are firmly convinced that the Ford Six is the best engine for our operation."



FORD TRUCKS COST LESS

LESS TO OWN . . . LESS TO RUN . . . LAST LONGER, TOO!

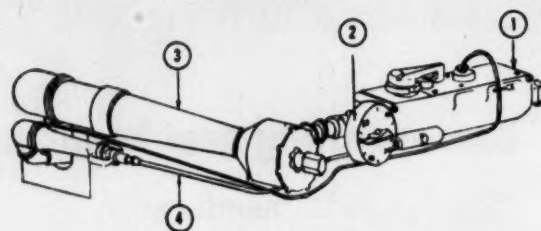
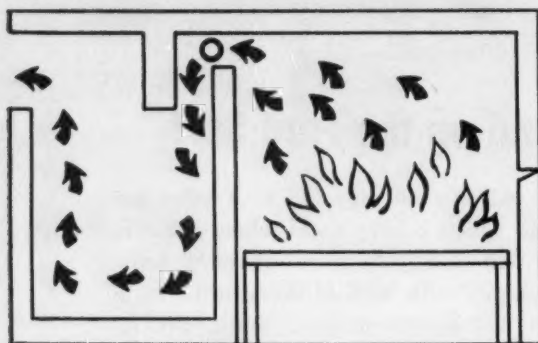


Fig. 1. Cross section (left) of a typical multiple-chamber incinerator showing flow of gases.

Fig. 2. Atmospheric burner (above) for an incinerator showing (1) 100 per cent shutoff valve, (2) mechanical automatic shutoff timer, (3) main burner injector, and (4) pilot line.

trash and poke the smoldering mass. And trash burning no longer means laborious separation of dry, clean trash from garbage, rubber, and other hard-to-burn substances.

Combustion of rubbish can be accomplished today in a device which combustion engineers call a "destructor." It is actually an incinerator with refinements which allow for the three "Ts" of combustion: temperature, time, and turbulence. Temperature is supplied by the introduction of one or more gas flames and secondary air. Time and turbulence are provided by bridge walls and drop arches which make up two or three chambers in the incinerator. A typical cross-section of a multiple chamber incinerator is shown in *Fig. 1*.

The result is that smoke and odors burn themselves up and fly-ash either burns up or settles out—all before the exhaust gases reach the stack. No smoke, no odor, and no flyash leave the stack.

There is no limit to what can be burned in the modern incinerator, so long as the material is combustible, and there is virtually no limit to how much can be burned or how fast it can be burned, so long as the incinerator is properly sized for the job. And the entire operation is automatic. Usual procedure is to empty refuse containers right into the charging door of the incinerator all day. When the ignition chamber is full, the automatic timer is set and the gas burner or burners are ignited. The incinerator does the rest.

Complete incinerators are available in a wide variety of types and sizes from numerous large capacity incinerator manufacturers throughout the United States.*

The role of L. P. gas

Although oil can be used to fire incinerator burners, it has two inherent disadvantages. Oil requires a pump, so electricity must be run

out to the incinerator. And oil is dirty and can give off smoke in its own right. Because of these considerations, especially, only gas burners are usually considered for the job, even by incinerator manufacturers.

For most uses, an atmospheric burner rather than a power burner is all that is required. In fact, multiple gas burners are reported by at least one manufacturer to be more efficient in the incineration of garbage and other types of refuse than a single high input burner. A typical 75,000 Btu atmospheric burner is shown in *Fig. 2*. Note that it has such features as 100 per cent shutoff, automatic shutoff timer, and a pilot light. The burner is also equipped with a specially-designed gas line one-way check valve which prevents any return of gas through the line.

Not only is L. P. gas the only fuel considered for firing incinerators beyond the mains, it is frequently used even in areas piped for natural gas. A leading West Coast incinerator manufacturer equips its incinerators for LPG operation whenever a natural gas line will have to be run more than 200 ft. The firm has found that it pays to lease an LPG tank and use that fuel rather than run natural gas pipe for more than the 200 ft limit (see case history which follows). And the firm's combustion engineers prefer an LPG installation to a natural gas-fired job because of the added Btu's provided by LPG.

Fuel consumption varies with number of burners and hours of use

*For specific information on incinerator manufacturers, write Readers' Service Department, *BUTANE-PROPANE News*, 198 So. Alvarado St., Los Angeles 57, Calif.



Refueling time at Hillcrest Country Club incinerator tank. The unit's five burners have an appetite of 1,875,000 Btu per hour.

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YOUR CUSTOMERS
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New "Springtime Sale"
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You're backed by big-space newspaper advertising in selected markets—and a sound, hard-hitting promotion package with all the trimmings!

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- One-hour Timer-clock
- Fully Automatic Ignition
- "Air-conditioned" Oven
- Smokeproof Broiling
- "Obedient Burner" Cooking
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per day. Larger industrial plants might use their incinerators all through their production day which might go three shifts. Temperatures of over 1200 deg. F must be maintained for smoke and odor-free operation.

Selling the market

Any commercial or industrial building with enough activity to cause accumulation of waste is a prospect for multiple chamber incineration. New buildings, whose builders, owners, or operators have not yet made any decision about rubbish, are prime targets. Architects and contractors should be encouraged to plan the building with waste disposal in mind, including an adequate incinerator in the contract.

Advantages of multiple combustion incineration include:

(1) Waste disposal is simplified. Merely take waste products — unsegregated except for combustible and non-combustible—to the incinerator and feed them in through the charging door. Set the timer, ignite the burners (if they are not already going), and forget the waste.

(2) Health and sanitation are promoted. Waste does not sit around in barrels or other containers waiting to be hauled off or burned. And ashes and unburned material do not sit around in a heap on the ground as in the case of an open fire.

(3) Smoke, odors, and flyash are eliminated. This provides a cleaner atmosphere for the community, and most communities are becoming increasingly air pollution control conscious. It also eliminates local nuisances and even damage where smoke, odors, and flyash disturb neighbors or cause various types of property damage. Community relations definitely take a change for the better.

(4) Working conditions are improved. Neat, clean work areas improve employee morale and efficiency. And employees dislike smoke and odors as much as do the neighbors.

(5) Labor, time, and effort are all saved. Automatic incineration does not require a fire tender or stoker.

(6) Money is saved by eliminating the need for trash pickup and

TABLE 1. COMMERCIAL-INDUSTRIAL INCINERATOR MARKETS AND THEIR WASTE PRODUCTION RATES

Market Type	Estimated Waste Production Rates	Type of Waste*	Comments
Commercial Buildings			Allow sufficient capacity for seasonal increases
Restaurants	2 lb/meal served	2 or 3	
Cafeterias	½ lb/meal served	2 or 3	
Supermarkets	9 lb/100 sq ft/day	1 or 2	
Department stores	4 lb/100 sq ft/day	1 or 2	
Office buildings	1 lb/100 sq ft/day	1	
Banks	Survey required	1	
Drug stores	5 lb/100 sq ft/day	1 or 2	
Clubs	2 lb/person/day	1 or 2	
Industrial Buildings			Consult incinerator manufacturer
Factories	Survey required	1, 2 or 3	
Warehouses (dry goods)	2 lb/100 sq ft/day	1	
Warehouses (produce)	4 lb/100 sq ft/day	2 or 3	
Hotels			Consult this table for additional food waste in restaurants. Allow more for auditoriums
Hotels (first class)	3 lb/room/day	1 or 2	
Hotels (medium)	1½ lb/room/day	1 or 2	
Motels	2 lb/room/day	1	
Trailer camps	6-10 lb/trailer/day	2	
Institutions			Consult incinerator manufacturer about pathological wastes.
Hospitals	8 lb/bed/day	1, 2, 3, or 4	
Homes for aged	6 lb/person/day	1 or 2	
Rest homes	3 lb/person/day	1 or 2	
Nurses homes	3 lb/person/day	1 or 2	
Schools			Allow additional ½ lb per student if cafeteria is used.
Grade schools	10 lb/room/day	1 or 2	
High schools	8 lb/room/day	1 or 2	
Colleges	Survey required	—	
Residential			Allow extra for exclusive neighborhoods
Private homes	5 lb/dwelling & 1 lb/bdm/day	1 or 2	
Apartment houses	2 lb/person/day	1 or 2	
Miscellaneous			Consult incinerator manufacturer
Industrial wastes	Survey required	—	
Municipal	4 lb/person/day	2 or 3	
Veterinary hospitals	Survey required	4	

*See Table 2

garbage collection services. And no refuse containers are required to store material until it can be picked up or hauled off.

(7) Fire prevention is increased. Material being stored for pickup is a definite fire hazard. And burning in open fires or a poorly constructed incinerator is a welcome mat for fire.

Sizing for the job

A commercial-industrial incinerator can be most valuable to a user if it is sized right. In sizing, the amount of waste and the type of waste are both important considerations. The amount of waste for specific users can be determined from Table 1. Types of waste—dry rubbish, rubbish and garbage, garbage alone, or pathological—are explained in Table 2.

Commercial - industrial incinerators are sized in pounds per hour

of material consumed. Capacities usually range from 50 lb all the way up to 2000 lb or more. The very large models are employed for woodworking activities where a constant supply of wood waste is transported to the incinerator, often by a direct air-conveyor duct.

To determine the capacity of the incinerator required for any job, first consult Table 1 to get the estimated amount of waste to be disposed of and the general type of waste. It is well to check the estimates for any particular customer by checking the weight and volume chart which is given as Table 3. Check also the waste classification, Table 2. It is then necessary to decide with the customer how many hours per day it is desirable to have the incinerator in operation in order to destroy the waste created in a 24-hour period. Divide the total maximum daily production of waste

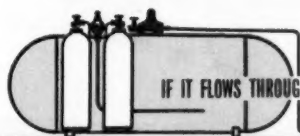


Little Joe Opens the Doors on May 3 at Chicago

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booths 87, 88, 89, 90

The wraps come off three new Fisher LP Gas products at the 1959 L.P.G.A. Convention. You won't want to miss these remarkable developments in LP Gas regulation. Fisher will have a complete showing of their entire LP Gas line, too. Representatives will be on hand to answer all your questions. P.S. Little Joe will be there, too.



IF IT FLOWS THROUGH PIPE ANYWHERE IN THE WORLD... CHANCES ARE IT'S CONTROLLED BY



FISHER GOVERNOR COMPANY Marshalltown, Iowa

TABLE 2. CLASSIFICATION OF WASTE

Type of Waste	Description
1	Rubbish, consisting of combustible waste such as paper, cartons, rags, wood scraps, sawdust, foliage, and floor sweepings from domestic, commercial, and industrial activities.
1-W	Rubbish, consisting of 90 per cent sawdust and wood scraps.
2	Refuse, consisting of an approximately equal mixture of rubbish and garbage by weight. This type of waste is common to apartment and residential occupancy.
3	Garbage, consisting of animal and vegetable wastes from restaurants, cafeterias, hotels, hospitals, markets, and like installations.
4	Pathological, human and animal remains, consisting of carcasses, organs, and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds, and similar sources.

TABLE 3. WEIGHTS AND VOLUMES OF COMBUSTIBLES

Weights	lb/cu ft
Rubbish	10
Refuse	30
Garbage	45
Loose paper	4
Scrap wood or sawdust	10
Pathological	55
Volume	Cu ft
Garbage can 16 in. dia. x 22 in. deep	2.0
Garbage can 18 in. dia. x 24 in. deep	3.6
Barrel (U. S. Standard)	4.0
Bushel	1.25
Oil Drum (55 gal.)	7.0
1 gal.	0.134

by the hours of operation desired. The result is the incinerator capacity required.

Case history

The Hillcrest Country Club, located in the middle of Los Angeles' westside commercial and residential area, needed a better method to dispose of its trees, shrub, and lawn trimmings and waste from its clubhouse. It solved its problem with a 500-lb-per-hour LPG-fired multiple chamber incinerator.

That LPG was used is significant. The Hillcrest is in the midst of the Los Angeles metropolitan area, one of the nation's biggest natural gas consuming areas. Mains run all around the club. But the incinerator's location is in the middle of the golf course, 4000 ft away from the nearest gas main. The price of running 4000 ft of 4-in. natural gas line, which costs approximately \$7 per ft in 1000 ft lengths, is prohibitive. It would have cost the club \$28,000 to bring natural gas to the incinerator. So LPG was chosen.

The 500-lb-per-hour incinerator is a retort type, which means the gases make a 180-deg. turn before

leaving the stack. It has three chambers with two 375,000-Btu LPG burners in the primary chamber and three similar burners in the secondary chamber. Each battery of burners is equipped with a General

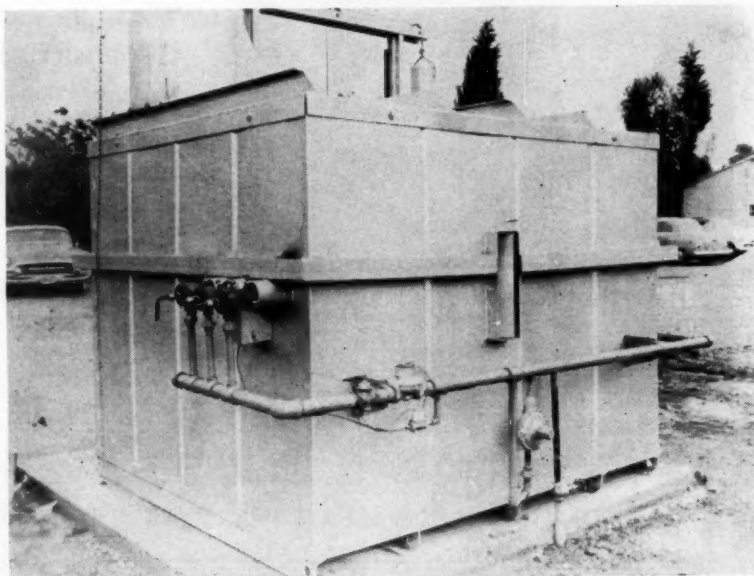
Controls 100 per cent safety shut-off valve.

LPG is supplied by a 1000 gal. tank leased by American Liquid Gas Co., Los Angeles. The tank has been painted light green to blend in with the country club's lawns. Service from the tank is through a Fisher regulator at the tank, which reduces pressure to 10 lb, and a low pressure regulator at the incinerator which brings pressure down to 11 in. wc. The tank is located 75 ft from the incinerator.

The fuel system supplies a total of 1,875,000 Btu per hour (approximately 20 gal. of LPG per hour). Operation of the incinerator takes place for three to four hours per day, six days per week. This provides a total LPG consumption of about 420 gal. per week.

One of the most important considerations for the country club is that the incinerator passed the strict requirements of the Air Pollution Control District, County of Los Angeles, which allows no excessive smoke for more than three minutes in any one hour.

An excellent year-round LPG load for the L. P. gas dealer and a perfect solution for customer trash disposal problems—that's the promise of modern commercial-industrial incinerators. It will be to the dealer's advantage to step into this lush market now. ■



A view of the three burners that destroy smoke and odors in the secondary chamber of Hillcrest incinerator. Note safety valves in center and second stage low-pressure regulator.



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water ***conditioning***

***a profitable,
easily
integrated
side line for
LPG dealers***

Within the past two decades, a new utility, soft water, has become an essential part of many homes. To the LPG dealer, this can mean much more than just another trend toward luxurious living. It can bring him substantial additional profits—with a minimum of additional problems.

Water conditioning ties in perfectly with the LPG business, as illustrated in the accompanying case history.

As a water conditioning equipment dealer, one of your first and biggest jobs would be educating your present customers to the many advantages of soft water. You'd want to take advantage of the many booklets, water testing kits, and other sales aids offered by manufacturers.

Later, you'd want to contact non-LPG users, including such relatively untouched markets as resorts, motels, schools, hospitals, factories, etc. One imaginative dealer cooperated with a motel owner to place a "soft water for your convenience and luxury" sign that resulted in increased business for both motel and dealer!

case history—

Arundel Gas diversifies, stabilizing business, increasing service

Arundel Gas Co. decided to enter the water conditioning business because:

- *There was a real, unfilled need for the service.*
- *All its present customers were prospects.*
- *Water conditioning equipment offers a higher margin than other appliances.*
- *Water conditioning, a year-around service, would help stabilize the company's business.*

WILLIAM T. HARPER • Eastern Editor

SELLING and servicing water conditioning equipment has proved to be a profitable and easily integrated side line for the Arundel Gas Co., Edgewater, Md. Jack Parlett, who manages the firm's Water Conditioning division, and his brother Bud, who has the same duties in the Gas division of their father's company, present a convincing case history.

Several years ago, the Parletts were having problems with the well water on their homesite. "It had a lot of iron and cloudiness in it," Bud recalled recently. "So, we bought a water conditioning unit and it solved our problems."

Being in the gas business since 1936 (nearly 5000 metered customers), the Parletts came in contact with many others who were having similar problems. People complained about rust eating away pipes and other equipment inside

their gas-fired water heaters. Others noted "red water" in their tubs and washing machines or were plagued by foul-smelling hydrogen sulphide and scum. Many of these troubles were unjustly attributed to the gas equipment sold by Arundel.

"We'd get calls about water heaters being rusted out," Jack said, "and after we sold them a glass-lined job, which should have been the answer to their problems, we'd soon get calls about rusty water again."

Remembering their experience in their own home, the Parletts decided the water, itself must be the cause and that water conditioning might be the answer. They contacted several water conditioning manufacturers and selected the Elgin Softener Corp., Elgin, Ill.

"You've got to have the manufacturer right behind you during

Announcement

Due to the expansion and diversification of the financing services of LPG CREDIT CORPORATION, the name of the Corporation will be changed to . . .



PURCHASE PLANS, INC.

312 EAST 131st STREET

CLEVELAND 8, OHIO

Effective March 2, 1959

A Change in Name Only...

A message to our friends in the LP-Gas Industry — the many dealers, fabricators and suppliers who have benefited from our service and helped us in turn to grow — we value your continued confidence in us, and we assure you that our interest, our effort, and our high calibre of service continue undiminished. Our executive personnel remain the same.

As in the past, our financing service is available to LP-Gas dealers and fabricators for the purchase and sale of LP-Gas Equipment, and inquiries are solicited concerning:

FINANCING OF CYLINDERS and TANKS
for dealers leasing containers to retail customers.



FINANCING the purchase of
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PURCHASE PLANS, INC.

312 EAST 131st STREET • CLEVELAND 8, OHIO

water conditioning



Water conditioner manufacturers provide water-testing kits for demonstration in prospects' homes. Jack Parlett, (left) manager of Arundel's water conditioning division, shows test bottles to his brother Bud, manager of the gas division.

the first year or you're lost," said Bud. "Their experience saves you from making costly mistakes."

Leonard H. Parlett Sr., president of Arundel, set up the Water Conditioning division separately from the Gas division to keep close and accurate check on the new enterprise. He wanted to be sure that it could make it on its own and wasn't merely being carried along by the Gas division.

Elgin sent its Domestic Department manager, James Flood, to Maryland to work with the Parletts in getting things started. "Jim still will come down here at a moment's notice if we've got a real problem," Bud said. "And, when he is in this area on one of his regularly scheduled trips, he'll even go out on a job with us."

Before getting started, Jack and one of his salesmen went to the Elgin factory for a one-week school. Among the topics covered were: the company's suggested rental and sales plans, water testing procedure, and conditioner installation.

The fact that the water conditioning business is not seasonal helped convince the Parletts they should give it a try.

Another reason, was that their sales of domestic gas appliances ceased to provide sufficient profit, due in part to discount house competition. They needed a less competitive item to maintain a proper profit margin.

Elgin allows dealers a 100 per cent markup on equipment. "You need 100 per cent to make money," Jack explained. "We might have to make five or ten trips back to the house to get the right adjustment. And, that 100 per cent also helps to cover some of the beginning cost."

What about beginning costs? It cost Arundel \$14,000 to purchase equipment to rent during the first year. Multiply this by the 100 per cent markup and it shows a potential income of \$28,000. Another \$8000 went for equipment during the second year. This was all capitalized by local banks. The lower figure for the second year indicates a number of rental customers had converted to sales. These conversions increase as people become more familiar with what the equipment can do for them and with Arundel's ability to handle it.

"Capitalization is an important thing," Bud emphasized. "If you're

going into rentals—and I think you have to sooner or later if you're going to get your stock moving—you have to watch your capitalization for the first two years, or until the rentals start paying off. But, you've got to be sure that your capitalization is set for two years."

Personnel costs for the new division were slight. Jack shifted from the Gas division to head the Water Conditioning division. A new salesman was hired, but this added little to the overhead as he works on a commission basis. One of the installation helpers in the Gas department was switched over. Local codes state that a registered plumber must make all water equipment installations, but the cost to Arundel was negligible as installation charges cover most of his salary. At the start, there were times when he had no work in water conditioning, so he was also trained as a gas service man. That helped gas promotion because they were able to advertise that they had a registered master plumber on their staff. When things picked up in the Water Conditioning division and there was too much work for their own plumber, Arundel hired local plumbers on a contract basis.

The only equipment needed was a used telephone company truck purchased for \$250. The truck has a perfect body for the job, with compartments for the necessary plumbing parts and a sliding roof top to keep chemicals dry in wet weather. A service truck with a two-way radio, diverted from the Gas department, was the only additional rolling stock needed.

The Parletts are convinced that LPG dealers are ideally situated for entry into the water conditioning business. People who are too far out of the city for gas pipe lines are often too distant from the conditioned water of a municipal supply. LPG dealers generally have sufficient sales and service personnel and the tools, trucks, and other necessary equipment to sell, install, and service water conditioners. They have no trouble with installations because their men are already trained in handling similar piping hookups.

An LPG dealer is usually well-known and respected in his area. His customers may be more in-



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LINE FOR
'59**

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OUT FRONT with every feature that counts! Check all that's new! Compare all that's standard! You'll buy! You'll sell—and how! For, each magnificent new Temco model reflects styling and engineering advances that definitely out-look, out-rank, out-perform all others! Your customers have more to say. More to sell! Don't miss a mention of these important new Citation features:

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Stock the line! Stack the dollars! Get free "Dealer Dollars" on any gas heating unit you order from the complete Temco line during the first six months of 1959! "Dealer Dollars" look like cash . . . and they spend like cash! Each is worth an actual one-dollar cash value on any Temco purchase you

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**A full line with FREE
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water conditioning

What is water conditioning?

The term "water conditioning" is now used instead of "water softening" because often other impurities must be removed in addition to water-hardening foreign matter. Mostly, however, it is a matter of softening hard water.

What is hard water?

High up in the atmosphere, water is quite pure, but as it descends to earth in the form of rain or snow, it begins picking up impurities from gases. When it hits the ground and works its way down to water-bearing strata, it really picks up impurities: alkalis and acids from soil chemicals, silica from shale, calcium and magnesium from limestone, and iron and rust from iron deposits.

How hard can it be?

Hardness is measured on a grains (of hardness minerals, usually magnesium and calcium) per gallon (of water) basis: 0 to 3.5 grains, soft; 3.5 to 7 grains, moderately hard; 7 to 10.5 grains, hard; over 10.5 grains, very hard (conditioners are equipped to treat water of up to 100 grains).

What are the bad effects of hard water?

The bad effects can be lumped into two categories: accumulating lime scale and rust, and soap curds forming around invisible particles of magnesium and calcium. Tell-tale dangers to watch for include: discolored, odorous, or bad-tasting water; bathtub and wash basin rings and stains; scanty soap suds; water spots and cloudiness on dishes and glassware; tattle-tale gray and rough-feeling laundry; dull hard-to-

primer—

manage hair; dry, scaly skin; excessive consumption of soaps, detergents, shampoos, etc.; and increasing inefficiency in water heaters and other water-using appliances.

How expensive is hard water?

Leading consumer publications estimate hard water can cost the average family of four from \$100 to \$200 per year. The largest expense is soap, 20-grain water requiring twice as much soap as 0-grain water, and 50-grain water requiring three times as much.

How does a water softener work?

A water softener is basically a tank filled with an ion-exchanging mineral which swaps sodium ions for calcium and magnesium ions changing the offending calcium and magnesium carbonates to harmless sodium bicarbonate. The ion-exchanging mineral lasts indefinitely, but must be recharged periodically with a brine solution. This may be done automatically, semi-automatically, or manually. Salt must be added occasionally.

What about other water conditioning problems?

Where more than one water problem exists, units may be installed in sequence: filters for sediment and foreign matter, iron removal filters for rust and iron, neutralizers for excessive acidity, and activated carbon purifiers for bad tastes and odors.

How extensive is the need for water conditioning?

Actually 85 per cent of the country has hard water, and much of the remaining 15 per cent faces other water problems.

case history—

(Continued)

clined to accept a new product from an old friend," and he would be somewhat familiar with their water problems. Even more important, water conditioning gets him into a lot of homes that he ordinarily wouldn't get into, promoting future sales of gas and gas appliances.

Has the water conditioning business been profitable for Arundel? It is now, but it took 18 months. This was due in part to "a plush entry into the business" because they were "scared." Jack Parlett's entire time was devoted to the Water Conditioning division for the first year. The second year it was a little less than 50 per cent. This year (the third) it'll be down to 30 per cent. The technical problems were also solved in the first year. Jack and the rest of the water conditioning staff were educated in the first year and that was expensive. All this was insurance: they were afraid this expensive equipment might not do the job and would hurt the gas business, so they spent extra money to be sure that they did the job right.

"Also," said Jack, "it takes time to show a profit because of the rental system. It's almost imperative that you offer such a system to your customers. I think if we had tried to sell these things right off, that approach would have fallen dead. It was too new for the people. So, we rented them for two per cent of the retail price per month. If a unit sold for \$200, the rental was \$4 per month. It takes about 25 months to get the cost back and from there on you start working on your profit. When people who are renting decide to buy, we give them 40 per cent of their rental fees toward the purchase price.

"We know now that we have a piece of equipment that will solve the customer's problem. We can tell them we're so sure of it, that all they have to do is rent it and then they will buy it. They pay the installation charges, so they have something to lose and consider before we take it out. If that hap-

Through the years only one burner has remained America's *Favorite*

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Famous "2 in 1" dual throat burner that provides measured heat... brings food to cooking temperature in shortest possible time.



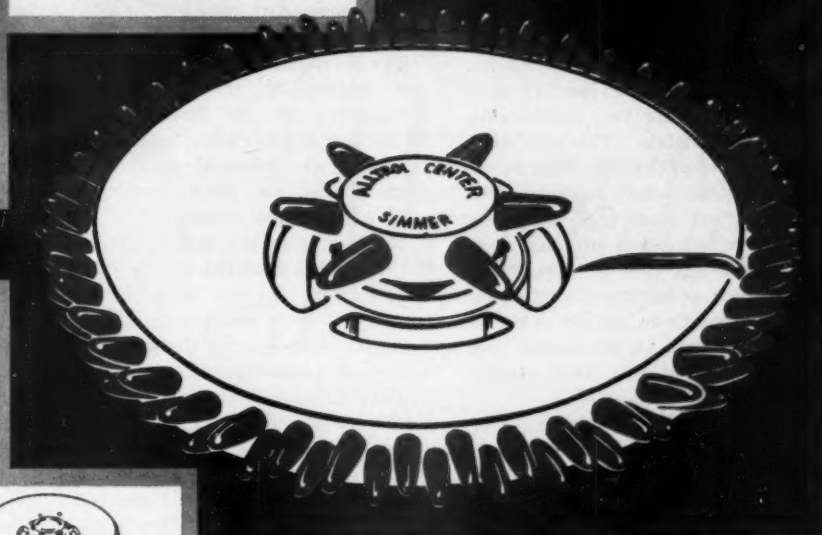
"CLICK"... convenient Low Fry heat for uniform browning or frying.



"CLICK"... efficient Center Simmer maintains boiling in any covered utensil.



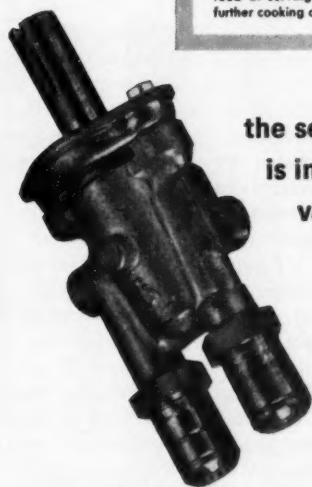
"CLICK"... Keep-Warm heat keeps food at serving temperature without further cooking or loss of food flavors.



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THE ORIGINAL

center simmer burner



the secret
is in this
valve!

Here's the burner that both mother and daughter can agree on! And while Harper engineers have developed many more recent innovations, the Alltrol Center Simmer burner *still* remains first choice among homemakers.

But then—is it any wonder this "measured heat" burner is so popular? It's simple and easy to use... clean, cool and thrifty... assures a lifetime of cooking triumphs.

Isn't it time (under today's competitive situation) to insist on these sales-producing burners for ALL your gas ranges—not just your deluxe ones?

Write for free sales demonstration book.

HARPER-WYMAN COMPANY

Dept. 59-B 8550 Vincennes Ave. Chicago 20, Ill.



pens, we have the used equipment which can be cleaned up and sold or rented again. If they purchase within 90 days of installation, we give them full rental back."

Arundel encourages customers to buy rather than rent. That way the company gets its money back immediately. If the customer does not have the ready cash, Arundel will help him finance the purchase through local banks. Most people realize it is better to buy and they do so as soon as they are satisfied with the equipment. Business concerns prefer to rent because they write off the cost as tax deductible.

In its two years in the water conditioning business, Arundel has installed 425 units serving 313 customers, including two restaurants and seven motels. The condition of the water in the area determines how many units each customer will need. A customer with only one water problem needs only one unit. But, if he has two or three problems—such as hardness, rust, iron, etc.; and wants to get rid of all of them, he needs an additional unit for each. A double unit usually means a \$400-\$500 sale.

At the start, Jack found most of his sales were coming from owners of homes in the \$30,000 class. These people had been living with water problems for years and with so much invested in the house, they were getting desperate for a solution. They had no money problems,

and they came to Arundel. But, every home owner is concerned with what is happening to his plumbing system. Even tenants are concerned: they're happy to pay the rental fee when a landlord pays for the installation.

Educating the customer is an important thing, too, according to the Parletts. They had a tremendous problem because most people in the area were only vaguely familiar with water conditioning. They were afraid of it, or they wouldn't trust it because a lot of such equipment that had been sold in the area wasn't properly installed or designed for the specific problem.

The Parletts did "a lot of creative advertising, mostly in the newspapers and by direct mail." In formal handwritten letters reproduced on personal stationery were mailed in plain envelopes with a first class stamp.

Another sales aid used by Arundel was a booth at the county fair. People were invited to bring in samples of their water to be tested right there, increasing their awareness and knowledge of what was floating around in their water. In the Arundel office is a display of pipes taken off jobs showing how rusted and clogged they can get.

Over half of Arundel's present water conditioning sales are a direct result of recommendations made by satisfied customers, many of whom are saving more than \$100

a year due to improved water. Everyone in the company is a "salesman," getting a commission for every lead that results in an installation. Many times, local plumbers will send in a lead and get five per cent commission even though they did not expect a thing. This goes a long way toward building good relations and providing future leads, the Parletts feel.

"One of the most valuable things Elgin provides the salesmen," said Jack, "is a portable test kit, about the size of an overnight bag. You test the prospects' water in their kitchen before their eyes. You show them what's wrong with the water by putting it in little test bottles containing chemicals. The reactions show up the iron or acid or whatever is there. Then you run some of their water through the portable water conditioner and show them the difference.

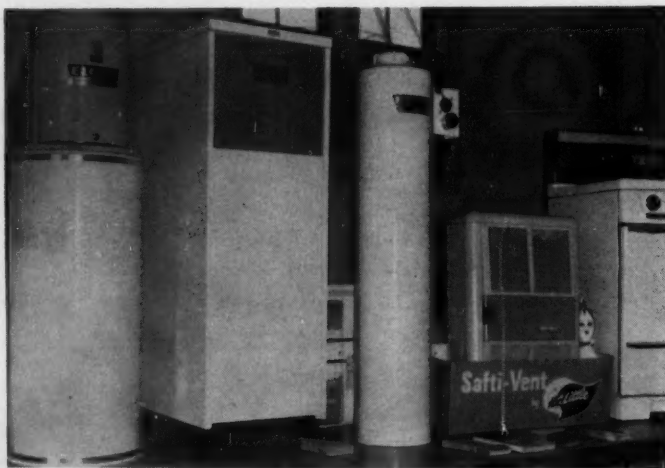
"We also have a portable conditioner that we can put on their water line," he continues. "If we just get them to try that for a short time, the results are so dramatic, that we make the sale about 80 per cent of the time."

"Sales can't be expected overnight," he cautions. "When people plan their budgets, they usually think about other appliances. They're not used to thinking about water conditioning. When you finally get them to do so, they've got to alter their budgets and this takes time."

Still another thing the Parletts like about the water conditioning business is the absence of routing and scheduling problems. Once the equipment is in and the customer is shown how it operates, the only return calls are for service, if needed, and for a checkup a year later by the plumber.

If anything goes wrong with the system, the customer turns a cut-off valve to insure his water supply while repairs are made. Most of the equipment sold by Arundel is completely automatic; the customer need do nothing to regenerate the chemicals which condition the water.

The Parletts believe Arundel's Water Conditioning division has proved that water conditioning can go a long way toward increased profits for the LPG dealer. ■



In the Arundel showroom three different models of Elgin water conditioners line up beside other LPG appliances. Most manufacturers make three different types of water softener to provide manual, semi-automatic, or automatic regenerating.



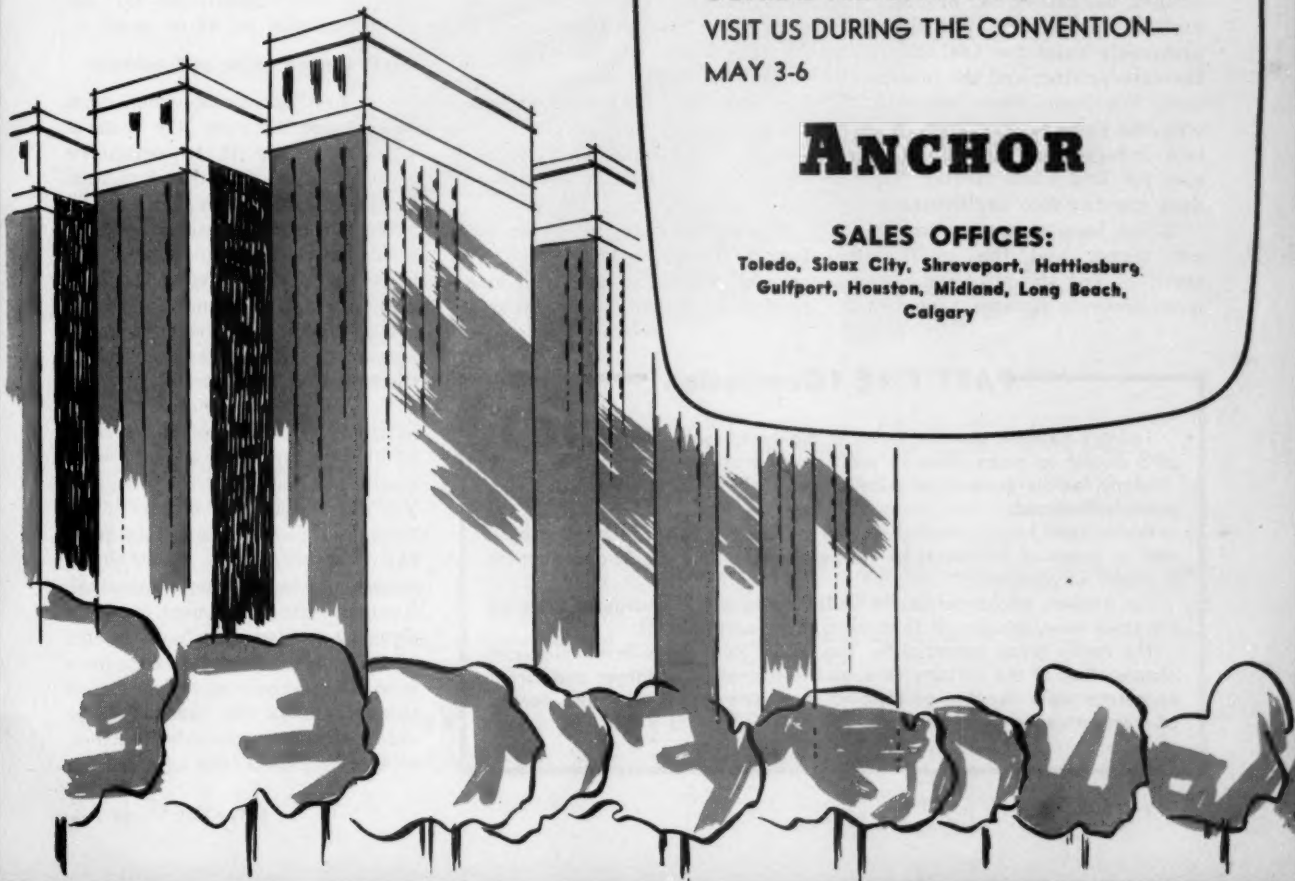
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How to Protect Your Capital

By J. GORDON ALLARD

Are you ignoring LPG's

"really great" potential?

BIG Business with its modern research and development, its diversification, and its integration has resulted in such stimulation and stepped-up competition, that today we are living in what is probably the most highly competitive society man has ever known. The increased tempo of competition, paced by big business, has not made small business extinct, but rather has provided a kind of opportunity that did not previously exist for the efficient, the enterprising, and the imaginative. For these, there is now not only the opportunity for creating new independent businesses, but also for small and medium business growing into Big Business.

It has been said that "the big get bigger and the small get smaller," but statistics indicate a more accurate statement would be

that the "big get bigger and the small get more numerous." Currently, between 400,000 and 500,000 new businesses are started each year in the United States.

Bigness is not always an advantage. The majority of the larger components of business costs are predetermined for all competitors within the same industry and the same or similar geographic locations. Rather, the crucial battleground of competition today is in the fields of: management techniques (which usually require bigness), in better personnel practices, (where bigness has excelled), and in new technological developments, (which usually require size).

These present-day basic economic factors provide but a few of the reasons why the successful independent L. P. gas dealer should be

making plans to profit from the existing opportunities.

In our last article we discussed: public financing, the most essential requirements for successful public underwriting, the specific information which must be compiled before approaching the investment banker, and how that approach should be made. Assuming that we have done all of these things and that we do have a firm commitment for the financing, what do we do next?

Determining value of business

The first agreement which must be reached between the banker and the owner is to determine a fair value for the business. In the case of a group of owners, agreement must be reached between each individual owner and the banker as to exactly what his business is worth. If owners approach this problem on a realistic basis, agreement between themselves and the banker is not difficult.

You have all of the factual reports mentioned in our last article, so there is no question as to what assets and liabilities are involved. You know what the condition of the fixed assets are because they have had a definite value placed by a competent independent appraisal. Your operating statement has been properly audited and shows exactly what your earnings are and have been. The analysis establishes what those earnings can reasonably be expected to be in the new situation, so they may have been adjusted up-

PART FIVE (Conclusion)

Today's business climate makes it highly advisable for the successful LPG dealer to make plans to profit from existing opportunities.

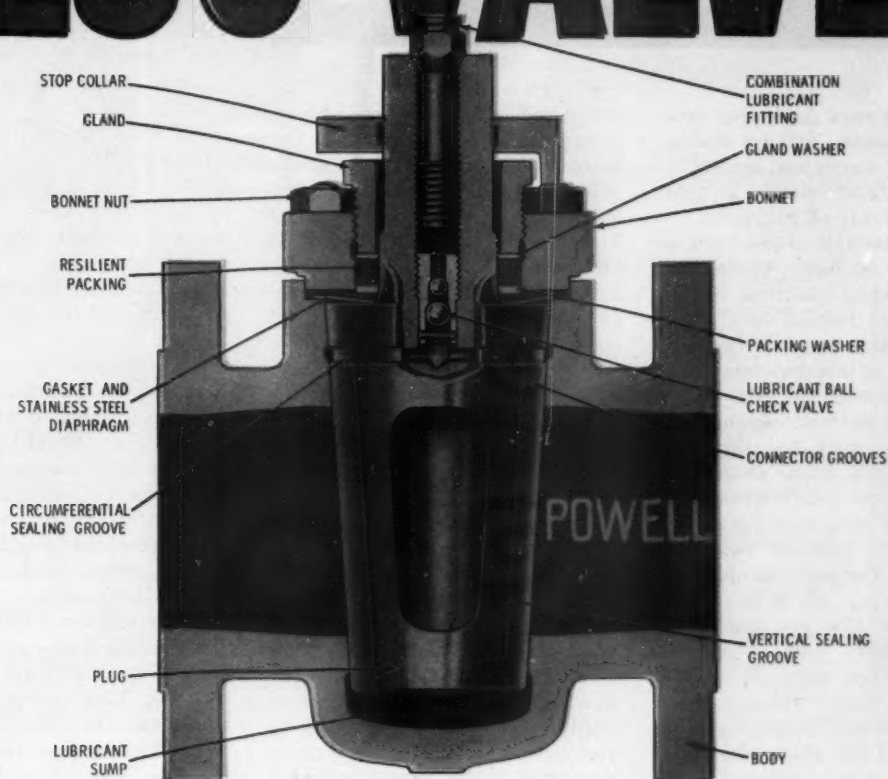
Many factors govern the price placed on a business when it is being publicly financed.

Professional help is needed for the many steps taken to bring a business or group of businesses to the point where they are in operation as a public corporation.

The bankers who organize the underwriting are in charge of creating the stock issue, bringing it to market, and maintaining it.

The really great potential for the LPG dealer exists in the financial organization of the industry through the formation of larger and larger corporate units capable of tapping the reservoirs of available capital and executive management.

POWELL LUBRICATED PLUG VALVES



Sectional view Powell Screwed Gland Lubricated Plug Valve.

Like all Powell Valves, Powell Lubricated Plug Valves are superior in their field . . . and have many advantages over other conventional types of Valves.

- Simple design: only three basic parts—Body, Bonnet, Plug.
- Quick, complete shut-off—a quarter turn will close or open the valve.
- Tapered Plug assures positive seating.
- Machined surfaces of plug and body are not exposed in the open position. Any media adhering to the plug when in the closed position is removed when plug is rotated.

- Cavity-free straight passage assures streamlined flow in either direction. Scale and sediment cannot collect.

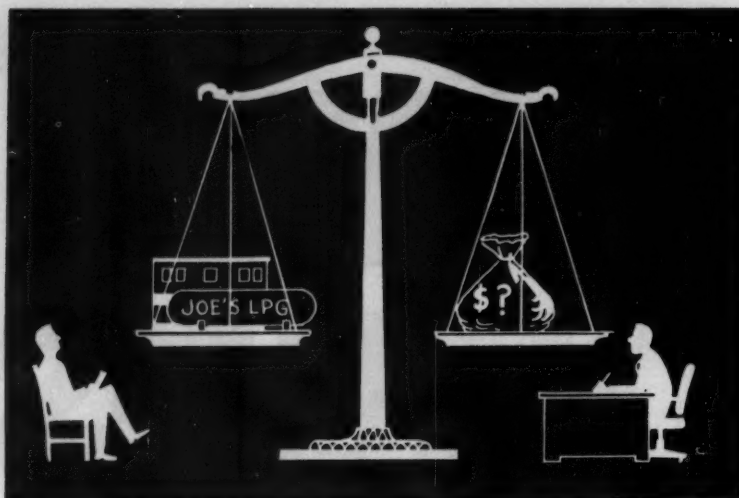
Powell Lubricated Plug Valves are available in sizes $\frac{1}{2}$ " through 16", depending on the type required—Semi-steel 175 and 200 pounds WOG;—Carbon Steel ASA 150 and 300 pounds.

Powell can also furnish Lubricated Plug Valves in other alloys on special order.

For all your valve needs, make it a policy to consult your local Powell Distributor—or write directly to us.

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ward or downward, depending upon the circumstances. You are dealing with a set of known and accurately determined facts relative to your business or group of businesses.

On the other side of the fence is another set of facts. These deal with the current condition of the money market. Is it a "tight" market or relatively easy? Is the general attitude of investors one of optimism and confidence, or is it one of gloom and extreme caution? On the average, what are investors paying for good, sound securities? More important and relevant, exactly what is being paid for shares of stock in the best and most successful L. P. gas public companies?

In comparing prices at which various securities are selling, a "times-earnings" ratio is customarily used. For example, if the shares of a company are selling for \$10 per share and the net earnings amount to \$1 per share, the price of the stock is ten times the earnings. The times-earnings ratio for shares varies tremendously between individual companies.

When there is a great demand for stock in certain companies, investors will bid prices up to 15, 20 or even 30 times earnings, while shares in other companies may be selling for 8, 10 or 12 times earnings when the demand for them is relatively low. The entire money market in general will have an effect upon the over-all price level. When there is plenty of investment capital available, and there is a high level of business optimism and

confidence, investors are actively bidding against each other to buy attractive securities and the entire price level tends to rise. Limited supply and high demand bring higher prices; abundant supply and low demand cause prices to decline. The basic function of the stock exchanges is to provide the "market places" where the investing public may go for the purpose of trading equities. Investors determine the prices for securities through their activity of buying and selling.

Another factor which has a decided effect upon the prices of securities is their "yield"—the dividends, or return, which investors receive on their capital. If a stock is selling for \$10 per share and the annual dividend being paid is 50 cents per share, the yield is 5 per cent. Depending upon circumstances, some investors are predominantly interested in a relatively high return while others are more interested in the growth potential of a stock and the current return does not mean too much to them.

These "other side of the fence" factors are usually the most important considerations in the final determination of a value for your business. Your assets are evaluated in the light of all these conditions, and their worth is determined in accordance with the ability of those assets to produce earnings and dividends competitive with the market in general. More specifically, the projected results of your business, or group of businesses, are going to be compared with the re-

sults of the best companies within the industry.

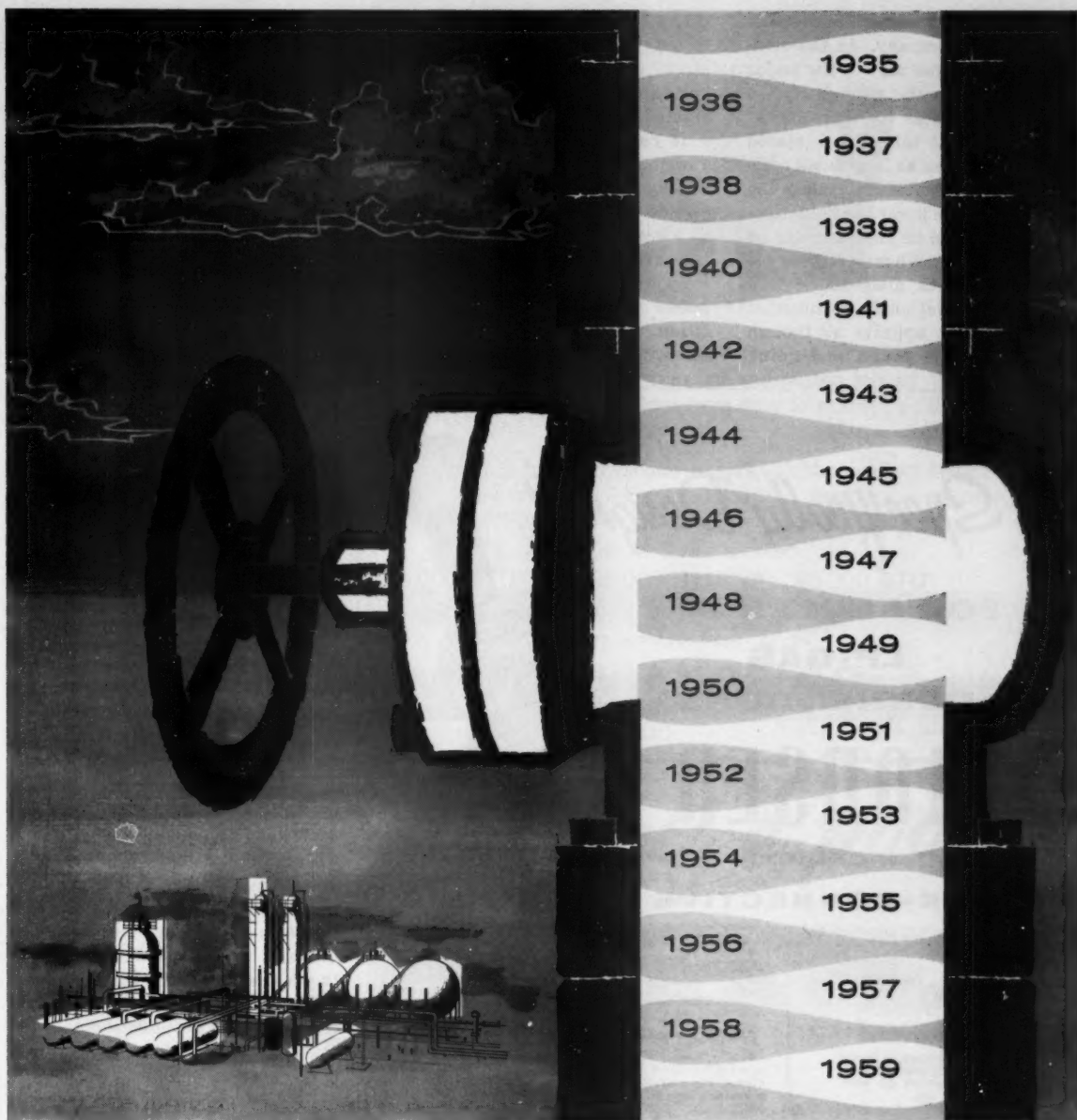
The foregoing points out a very important and basic economic fact. Economic forces beyond your control determine what your business is worth regardless of what you, as the owner, might think is a fair value. You readily adjust to this situation in your daily business dealings, but often when people negotiate for the sale of their business they want to adopt a different set of rules.

It is your prerogative to establish any price you desire on your LPG, but you *can't* do it. Your competition and your *predetermined* costs, neither of which you control, determine the price. You may set any price you want on your business, but you are only going to sell it for what a willing buyer or buyers will pay.

There is usually room for a lot of bargaining when you are dealing with an individual, but this is not so when dealing with the investing public. No market is more highly competitive than the money market, and if you are going to interest investors in purchasing a part of your business, it must be attractive compared with other investment opportunities. In fact, when a new company enters the public market, it must present a more attractive investment opportunity than that available in other similar companies already established. Investors are not going to take the additional risk involved in buying into a new venture unless there is some very good reason for so doing. They are not going to pay an unrealistic price for the privilege of being in business with you.

When you sit down with the bankers to determine the value of your business, you should seriously consider their thoughts and ideas and be prepared to go along on *their* basis, for otherwise you just won't have a deal. The bankers know and understand the current condition of the money market; they know what can be sold and what cannot and they know the prices which the public is paying for stocks. They know what it takes to make a deal succeed; and certainly neither of you can afford to be a party to a deal that flops.

When you go into a public un-



Year after year after year...

Over 20% of Shell's LP Gas Distributors have been constant contract customers for Shell Propane—for ten to 25 years without interruption.

Through the years, Shell has maintained a 100% delivery record to all its propane customers. This achievement stems from one important policy:

Shell contracts to sell propane only within its capacity to produce.

Let a Shell Representative show you why it pays to be a Shell Propane contract customer.



SHELL OIL COMPANY



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derwriting, you may not be actually selling your company. As the owner, or owners, you may be the major stockholders in the new entity, so it does not matter too much, with-in reason, what valuation is placed on your business as long as all companies are evaluated on exactly the same basis. The lower the valuation, the greater will be the earnings on the investment. When investors see a company with abnormally high earnings in relation to its invested capital, and it appears as though the company is sound and going

places, it does not take them long to bid up the price. Therefore, your stock, very shortly, may be priced substantially higher than when you started.

If you have set ideas as to what your business is worth and are not willing to adjust your thinking (as you do daily in your own business) to a realistic basis compatible with the current conditions of the money market, you should not consider a public underwriting at all. Competition in the financial field is intense, providing investors with a

very wide choice for employing their funds, so you *cannot* arbitrarily tell them what shares in your business are worth.

Once a value for your business has been agreed upon, the next thing to determine is how much cash you will take from the proceeds of the underwriting, how much stock you will take and what type, or types, of stock.

If the type of underwriting we are considering is going to be successful and get off to a good start, the owners should not take a great amount of cash on the initial financing. Some owners accumulate a substantial amount of cash in their business and would like to have at least an equivalent amount. Perhaps cash for the accounts receivable on a guaranteed basis could also be included. There are no definite, set rules, but it could probably be said that owners should not take more than 25 per cent of the total evaluation of their companies in cash. If the deal is of the caliber described in these articles, owners would be unwise not to take practically all stock, except for their immediate cash requirements. The more cash the owners take out, the less interested the public is in the deal, and vice versa. The public is willing to become a partner with you in your business, but as a rule is not interested in just bailing you out with its money. Investors are going to depend upon you to make the deal succeed and bring the new entity to a point where it is well-established as a public company. If most of what you have is tied up in this deal, the public will have a feeling of confidence.

When the above factors have been satisfactorily resolved, the rest of the procedure that must be followed is a matter of mechanics which must be handled by experts in the field.

With a group of companies involved, a merger into one corporate entity would be necessary, putting all assets into one unit and taking back stock in the new corporation. Having reached the various agreements already discussed, this step is a very simple one and would be done on a tax-exempt basis. It is simply an intermediate step which must be taken before the group can proceed with the financing. The

Specifically Designed

FOR FOOLPROOF

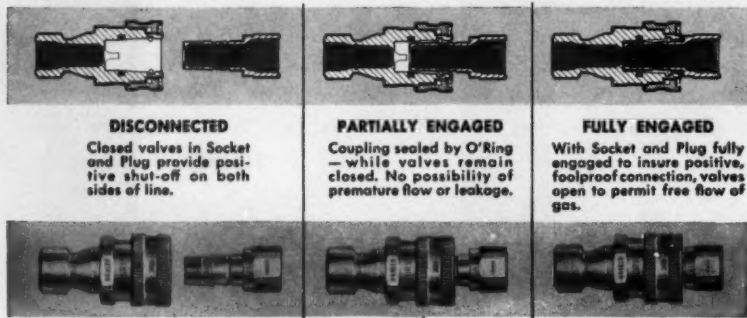
LP-GAS

CONNECTIONS

HANSEN

3-GRL1621

QUICK-CONNECTIVE COUPLINGS



DISCONNECTED

Closed valves in Socket and Plug provide positive shut-off on both sides of line.

PARTIALLY ENGAGED

Coupling sealed by O'Ring — while valves remain closed. No possibility of premature flow or leakage.

FULLY ENGAGED

With Socket and Plug fully engaged to insure positive, foolproof connection, valves open to permit free flow of gas.

Specifically designed for LP-Gas line connections, Hansen GRL Couplings completely eliminate the hazard and annoyance of leakage or spillage of gas. To connect (no tools required), you merely push the Plug into the Socket — all the way. To disconnect, just turn sleeve — Coupling instantly and automatically shuts off both ends of line.

Sockets available with $\frac{1}{4}$ " female pipe threads. Plugs available with $\frac{3}{8}$ " female pipe threads.

Write for descriptive literature

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QUICK-CONNECTIVE FLUID LINE COUPLINGS

THE HANSEN

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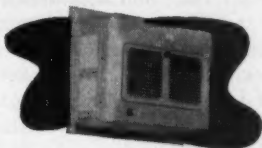
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Tired of hearing from people who think they pay too much for heat? Then sell Suburban Novent or Dynavent Gas Heaters and listen to happy reports of complete satisfaction instead. These modern, automatic gas heaters give plenty of clean, even heat from floor to ceiling . . . **SAVE UP TO 30% IN FUEL COST.**

Suburban Novent and Dynavent Heaters . . . install in window or wall . . . vent without flue or chimney . . . give completely automatic forced warm-air circulation . . . burn no room air.



Available in three sizes:

20,000 BTU • 35,000 BTU • 45,000 BTU

Approved by AGA, Leading Utilities and LP-Gas Marketers

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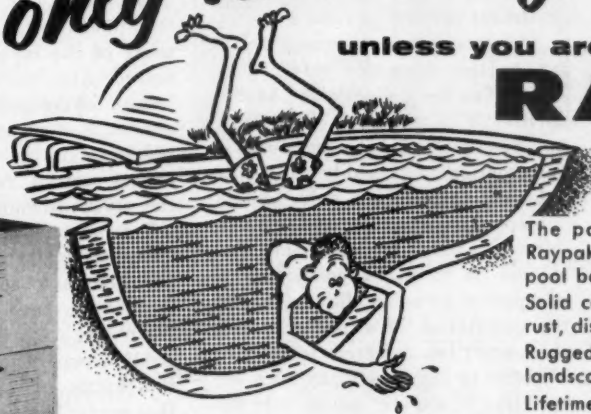
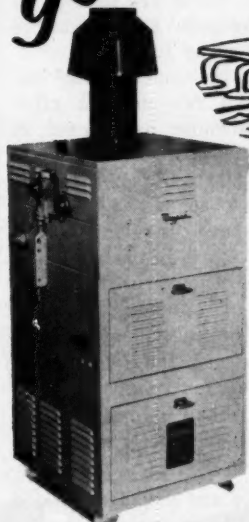
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you only have half a pool...

unless you are using the fabulous **RAYPAK** swimming pool heater.



RAYPAK PROVIDES THESE OUT-
STANDING FEATURES TO DOUBLE
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The patented Unatherm Governor makes Raypak the only fully automatic swimming pool boiler.

Solid copper and bronze waterways prevent rust, discoloration and corrosion.

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Lifetime stainless steel gas burners for top efficiency, quiet operation and fuel savings.

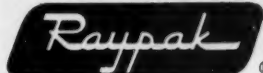
Fully equipped with reliable controls.

Unatherm Governor controls boiler temperatures to eliminate condensate and practically eliminate scaling. Obviates need for expensive indirect system.* Internationally distributed United States, Canada, Mexico.

Wide range of sizes.

* Indirect system also available.

THE QUALITY STANDARD



COMPANY, INC.

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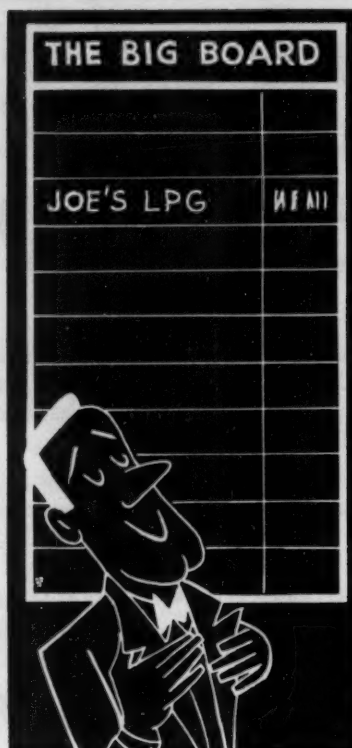
EL MONTE, CALIFORNIA

legal firm used by the underwriters should be retained to handle this to avoid duplication of work and expense, as the firm will do other things in connection with the underwriting.

After the group is formed into one large corporate unit, the next step is to engage a firm recognized by the Securities & Exchange Commission as a disinterested party competent to investigate and certify the accuracy of all financial and other pertinent information for the owners of the company, the bankers, and the public.

This same firm will then put the deal together and prepare a preliminary prospectus, nicknamed the "red herring." This will set forth: all facts relative to the proposed stock issue; all pertinent financial information regarding the company; a history of the company (in the case of a group of companies just having merged into one unit, a brief history of each individual company would be given), a statement as to the application of the proceeds to be obtained from the underwriting; names of the officers and directors with a brief statement about their experience and background; the salaries they are to receive; their planned stock holdings and what (if any) stock options they hold; a statement of legal and accounting experts; a statement relative to the underwriting agreement, naming: the managing underwriters and what they are committed to do, the other underwriters involved, what type or types of securities are to be issued; etc. All of these things have been previously determined during conferences between the owners and the underwriters.

Having already made all of the required reports as previously outlined, it is now simply a matter of putting all of this information together in proper technical form and having it verified for the Securities & Exchange Commission. This preliminary "red herring" prospectus must be technically correct in every detail. It does not state: what the price of the stock is going to be if and when it is offered to the public; the underwriting discounts; the net proceeds to the corporation, and perhaps other facts and figures which may be omitted, depending



upon the type of securities involved.

In case you're wondering about the name, "red herring," each and every page of this preliminary prospectus contains the following statement printed in red:

"A registration statement relating to the securities referred to herein has been filed with the Securities & Exchange Commission, but has not yet become effective. Information contained herein is for informative purposes only, and is subject to correction and change without notice. Under no circumstances is it to be considered a prospectus, or as an offer to sell, or the solicitation of an offer to buy the securities referred to herein. No offer to buy or sell any such securities should be made and no order to purchase the securities herein referred to will be accepted unless and until a registration statement under the Federal Securities Act of 1933 relating to the securities herein referred to has become effective."

After the "red herring" and the Registration Statement are on file with the Securities & Exchange Commission, there is a waiting period (usually 30 days) before the

deal is released, giving the bankers permission to sell and issue the securities.

Before the "red herring" is printed the bankers with whom you have made your agreements have meanwhile contacted other investment houses informing them of the proposed underwriting and inviting them to participate if they so desire. It is highly desirable to have as many underwriting houses as possible, consistent with the size of the deal, in order to give the stock a wider distribution to the public. The bankers who organize the underwriting syndicate are the underwriting managers for the deal. Copies of the "red herring" are circulated among those houses signifying interest; and they decide within their respective organizations approximately how much of the stock they would like to have, subject to receipt of the final prospectus and official release of the deal.

A few days before the deal is to be released by the Securities & Exchange Commission a final prospectus is sent to the printers. It will include all of the information contained in the "red herring" plus the figures and data which were omitted, as noted above.

Selling the stock

On the day the deal is released, this final prospectus is distributed to all of the investment houses involved. Also, wires are sent to all houses telling them: the price of the shares, how many have been allotted to them, the underwriting discounts, etc. A few minutes after the stock exchange has opened, it will be announced that the issue is "oversold" and the books of the corporation have been closed.

Now you have "the show on the road" and you are in business as a public corporation with stock in the hands of hundreds, perhaps thousands, of individuals. From this day forward, the price of the stock will be quoted daily in newspapers and other publications, so you always know exactly what your stock is worth.

Good deals are usually oversold as clients of the various investment houses involved want more stock than is available, and the underwriting managers apportion it out on some equitable basis.

NOW! LEASE THE COMPLETE SYSTEM

at only \$695*!

a new program of the **LPG** LEASING CORPORATION

Mr. Dealer! Here's your opportunity to increase your gas load and expand your business at the **lowest minimum capital outlay possible**. For only \$6.95* a year, tax deductible, you get this complete system!

*251 Packages Minimum Order

(Rental for smaller quantities and in Canada slightly higher)



- All new equipment, warranty-protected, ready to install.
- 10 year lease with favorable dealer purchase option at any time.
- Leases on single cylinders available 15 year plan.
- One annual payment covers everything — No other costs.

The complete package: Two . . . 100 lb. ICC Cylinders, Two . . . 21001 Cylinder Valves, One . . . 551 LP-Gem Regulator, One . . . 27004 Tee Check Manifold, Two . . . 780 Pigtails.

Get full details at the
WEATHERHEAD BOOTH
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or write . . .

LPG

LEASING CORPORATION

Subsidiary of The Weatherhead Company

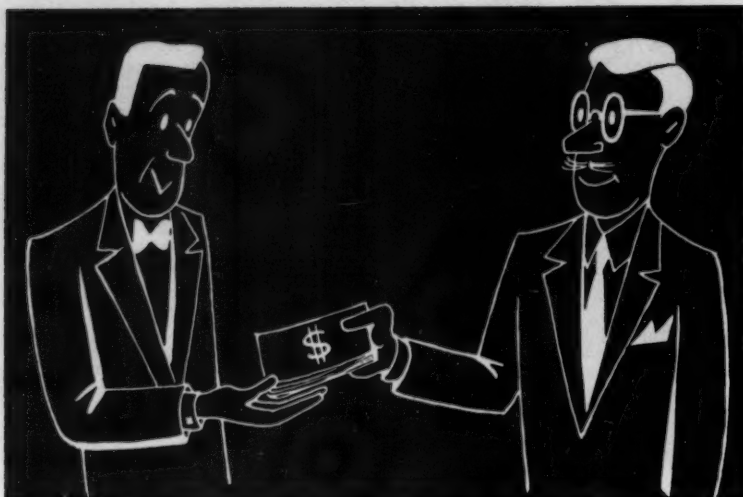
300 East 131st Street • Cleveland 8, Ohio



another example of

Leadership
LPG profit
growth . . .

THE WEATHERHEAD WAY



Overselling also creates a "short" position in the stock which helps to maintain a steady market, a situation always desirable, particularly on an original financing. When customers cannot obtain as much stock as they would like to have, it gets the new issue off to a good start—makes it "hot." This usually makes the next round of financing much easier to accomplish.

Now the various investment houses which participated in the financing try to maintain a steady and stable market for the new issue. They take a trading position in the stock, buying shares from stockholders wishing to sell, and selling shares to people desiring to buy them.

The underwriters often take a position in the floating shares by

maintaining a current bid for the stock, thereby creating an accumulation of shares which they can in turn re-sell to the public at a profit or commission. This activity, plus adequate and successful earnings statements from the company, make a stable market for the stock. Favorable news coming from the management from time to time puts the stock on a higher price basis.

Perhaps it might be well to illustrate here, with a simple example, how the financial aspects of a deal are set up, noting the changes which take place as a result of the underwriting.

Suppose it has been decided to issue 500,000 shares at an original price of \$5 per share. This would be the common stock capitalization of the new corporation. Now suppose a value of \$2 million has been agreed upon for your entire business, or group of businesses. When you owners put all of your assets into the new corporation, you will receive in return 400,000 shares (\$2 million) and 100,000 shares stay in the corporation. In the case of an existing corporation being

Honeywell launches three major promotions

Three major promotional programs are being launched by Minneapolis-Honeywell Regulator Co. to boost industry-wide sales of heating and air conditioning equipment.

The three programs include: (1) an advertising and sales promotion program to promote the concept of two heating systems in the American home; (2) a newspaper ad campaign, scheduled for 30 key cities, to help sales of air conditioning systems during the summer's hottest days; and (3) a long-range educational program to acquaint housewives with the advantages of central year-round air-conditioning.

The industry-centered programs are designed to help the industry rather than the sponsor. Some \$375,000 is invested in the programs.

Details of the plan were presented at meetings held in Chicago and New York in April. Making the announcements were Honeywell vice presidents K. L. Wilson, head of residential sales, and H. D. Bissell, advertising and sales promotion.

The two-heating system program is directed at what Honeywell describes as the "most lucrative" part of the new home market—Americans in the mass middle income bracket who will purchase an estimated 250,000 homes this year.

Heart of the program is advertising that will appear in consumer, builder, and trade magazines.

All advertising and promotion material has been prepared in two versions—one designed for use by the warm air section of the industry and the other tailored for use in promoting two-zone hot water heating.

The consumer advertising-education program kicks off in May with two-page, two-color ads in *House Beautiful* and *Better Homes & Gardens*. The program continues in June, July, September, October and November. Also featured will be ads aimed at home builders.

"Operation Heat Wave" is the newspaper air conditioning campaign. Basically, it is a local advertising and sales promotion program

timed to help boost sales during hot weather in 30 key cities.

The third phase of the program—"Milady's Climate"—will be carried on indefinitely. Built around an 18-minute color movie and a 12-page consumer booklet, this program tells the story of air conditioning to housewives. The American Gas Association's air conditioning promotion committee cooperated in the development of this program.

Honeywell's investment of more than \$1 million in industry-type programs was explained by Vice President Wilson: "The best way—perhaps the only sound way—to advance one's own interest in any market is to place one's primary efforts toward expanding the entire market with the hope of getting a fair share of the new or additional business."

He also pointed out that the company's motives "are not purely altruistic." "Honeywell," he said, "is strictly an accessory manufacturer; . . . So the health of our business—good or bad—is inseparably tied to that of the industry we serve . . ."

**You'll close more
appliance sales
when you use
this handy
COMPETITIVE
COST CALCULATOR**



Now . . . with this authoritative, convincing sales tool, you can prove to your prospects *quickly, easily, and simply* that LPG costs less than electricity for cooking and water heating. Money talks with most people, so *dramatize the savings* with a Competitive Cost Calculator.

Compares the average annual cost of operating LPG versus electrical appliances, using your own local rates.

Proves to your customers' satisfaction that it's less expensive to cook and heat water with LPG than with electricity.

It's authoritative! Average annual usage figures for both LPG and electricity are taken from Technical Bulletin 1073 prepared by the U. S. Department of Agriculture. It will last for years. Made from durable plastic-laminated board.

LPG OPERATORS—

The Competitive Cost Calculator builds fuel sales as it builds appliance sales. Hundreds of LPG appliance salesmen are using the Calculator to add authority to their sales presentations. Be sure each of your salesmen has one with him on every call.

\$1.00 each

Orders of 50 to 99—80¢ ea.

Orders of 100 or more—70¢ ea.

(In California add 4% Sales Tax)

**The supply is limited
so order today!**

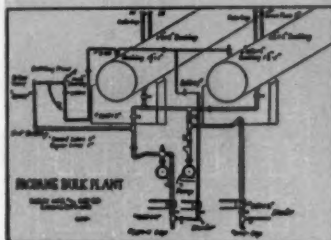
Butane-Propane News
198 S. ALVARADO STREET
LOS ANGELES 57, CALIF.

**Your One Supplier with everything in L. P. gas
and Anhydrous Ammonia Equipment**



"The Loadmaster" LPG Truck Tank

PASLEY-DESIGNED Truck Tanks (see above and right) were first to feature all controls from one location. All operation is from one point—rear compartment.



BULK PLANTS Pasley LPG and Ammonia type installations—a turnkey job or engineering for your own installation. Write, wire or call.

Also a complete line of accessory equipment.

"Pastels By Pasley"

COLOR—The Modern Trend!
Bring your LPG Equipment up to date. Available in the following colors . . . (write for information)

Blush Peach	Smoky Grey
Sunshine Yellow	Seafoam Blue
Mustard Lime	Wedgewood Green
Eureka Orchid	Rose Beige
Lake Blue	Desert Rose



EVERYTHING IN LPG AND ANHYDROUS AMMONIA
The Pasley Mfg. & Dist. Co.

101 East 11th Street • Kansas City, Mo. • Tel. MA 2-0100

used, the value and number of the shares are simply re-arranged to coincide with the above figures.

The purpose of the underwriting is not only to get the stock into the hands of the public but also to obtain money with which to pay the owning stockholders a certain amount of cash and have additional cash for working capital, expansion and other corporate requirements.

If the owner, or group, has decided to take \$500,000 in cash, then 100,000 of their 400,000 shares are sold to the public, the owner or the group retaining the other 300,000 shares. We will assume that the corporation requires \$500,000 in cash for various corporate purposes, so the additional 100,000 shares being held in the corporation are sold to the public at \$5 each. Consequently the underwriting involves the selling of 200,000 shares at \$5 each, equal to \$1 million. Half of this amount is new capital staying in the corporation and the other half goes to the selling stockholders. So the situation ends up with you as the original owner, or group of owners, holding 300,000 shares and the public holding 200,000 shares, 100,000 of which were formerly owned by you or the group. Now, instead of the owners having \$2 million in stock, which they had before the underwriting, they have \$1.5 million in stock and \$500,000 in cash.

This example attempts to explain in the simplest possible way what actually takes place during the first few minutes on the day a privately-owned business, or group of businesses, becomes a public corporation. After the first initial sale of 200,000 shares, the price might change before the day is over, so the shares could be worth more than \$5 each.

Underwritings take on many varied forms, there are several different types of stock, bonds, debentures, stock options, warrants, etc., so a deal is not usually quite as simple as the example would indicate.

Previous articles have discussed some of the principal problems confronting owners of successful businesses and how those problems affect the security of their capital accumulation. We also have examined the three general ways in which a

business can be sold if an owner has that opportunity. This and the previous articles have dealt with public financing as a means by which owners may alleviate their problems and obtain the financial security they desire.

Some might feel that this procedure requires far too much work and expense and is far too complicated. Why would anybody choose the public underwriting route to follow rather than to just sell out or merge with a big company?

In the first place, as has been pointed out previously, you may not have the opportunity to sell or merge on desirable terms. Secondly, a new public underwriting has all of the advantages of the other methods plus one great advantage which none of the others have to the same extent—that of substantially increasing the value of what you own.

Although our industry as a whole continues to grow as customers and new uses continually increase, the really great potential for the L. P. gas dealer is not in this direction. Rather it exists in the financial organization of the industry through the formation of larger and larger

corporate units capable of tapping the great reservoirs of capital available and attracting top-flight executive management personnel. The many advantages of large, publicly-owned corporations versus small independent businesses have been pointed out. The tempo of today's economy requires Big Business.

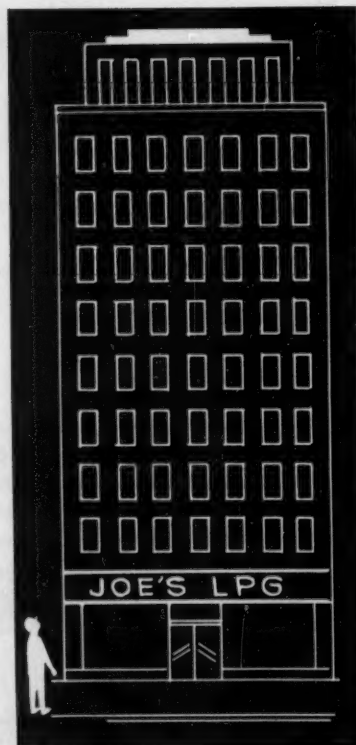
Through the medium of public financing, owners can be on the ground floor of a new deal—a new large corporate entity composed of a group of smaller successful businesses within an established industry. The avenues leading to investment capital are now open to you, and the expansion and progress of the corporation is limited only by the management's vision and ability. As the enterprise expands the equity value of the stock increases. Successful performance of the company will increase the public's interest in the stock thus increasing its price with increased demand.

If inflationary pressures are at work, stock prices tend to rise still further even though higher earnings and dividends are not necessarily assured. Inflation, in itself, does not guarantee higher earnings, higher dividends or higher prices for common stock.

Inflation or not, if the new corporation was put together right in the first place with capable management and if it meets the tests for a sound and conservative investment, the odds are tremendous in favor of a very substantial increase in the value of your holdings.

As time goes on, you will be able to gradually diversify your investment by selling a portion of your shares as it is opportune to do so and re-investing your money in other sound and profitable companies, thereby increasing the security of your capital.

We are all a part of a very dynamic economy in this country. Our growing population, our outstanding ability in the field of mass production, our scientific achievements, and our resources in energy, commodities and manpower all create great confidence in the future. And the future holds no bounds for the successful L. P. gas dealer who has the foresight, understanding and ingenuity to capitalize on the opportunities created by that confidence. ■



LPGA CONVENTIONEERS!



WELCOME TO CHICAGOLAND for the 1959 LPGA Convention

Chicago is the headquarters office for Cities Service LPG sales and service. We invite all LPG Distributors to stop in during the 1959 Convention and become acquainted with the men who serve you here at Cities Service.

Cities Service will maintain a suite at the Conrad Hilton during the convention. Stop in to visit and have a friendly chat or come in to discuss any questions you may have for there will be a good number of LPG specialists on hand for consultation.

IT'S CHICAGOLAND for the 1959 Convention! Don't miss it.

SERVICE! ... part of our name, part of our business

Cities Service Suite, Conrad Hilton Hotel

CITIES SERVICE
QUALITY PETROLEUM PRODUCTS

3435 Broadway
Kansas City 11, Missouri

20 N. Wacker Drive
Chicago 6, Illinois

701 Sherland Building
South Bend 1, Indiana

500 Robert Street
St. Paul 1, Minnesota

6611 Euclid Ave.
Cleveland 3, Ohio

7730 Carondelet Ave.
Clayton 5, Missouri

626 E. Wisconsin Ave.
Milwaukee 2, Wisconsin

1658 East Euclid
Des Moines 13, Iowa

170 University Ave.
Toronto 1, Canada



news



Protane forms new Pan American division

Reflecting the increase in the use of L. P. gas in Latin America, the Protane Corp., Cleveland, Ohio, a subsidiary of the Weatherhead Co., has announced the formation of a Pan American division and the appointment of Benton F. Murphy as manager. The announcement was made by Andrew R. Olson who became president of Protane last year.

The new division has been established to place greater development emphasis on the present Latin American districts. At the present time the division nucleus includes three subsidiary companies, Venezolana de Gas, S. A. (Vengas), in Venezuela—Compañia Gas Liquido, S. A., in Cuba, using the trade names Gas Galisa and Protane Gas Service—and Protane Gas Co. of Puerto Rico Inc., operating under the trade names of Protane, Presto-Gas and Caguas Gas.

In addition to his new duties as division manager, Murphy will continue as managing president of "Vengas" in which company he was an original partner at the time of its formation in 1953 and which he continued to manage after Vengas was acquired by Protane in 1956.

Mr. Murphy is a native of Missouri. His first employment was on a trans-Atlantic freighter. His determination to finance his own college education necessitated his working at various occupations for five of the nine years required to eventually obtain his Mechanical Engineering degree at Oklahoma State University. During the intervening years he was engaged in seismograph work and other oil field activities in the southwestern U. S. and in Venezuela. After serving in World War II he returned to South America where he organized a company which specialized in the leveling of land and the installation of water supply and drainage for home building sites.

Acquired by Weatherhead in

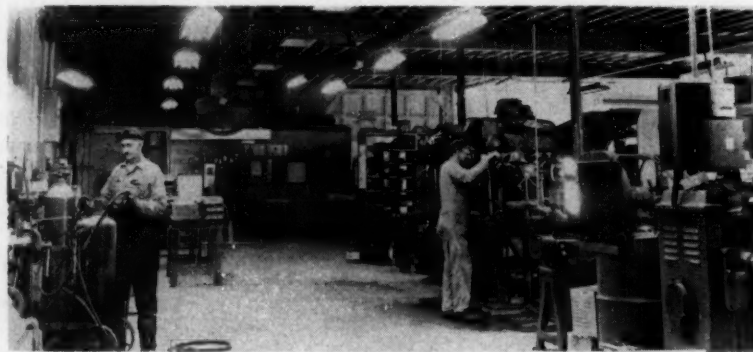


The Caloric Appliance Corp.'s color-coordinated kitchen display was designated as one of two prize-winning exhibits in its category at the 16th Annual Cleveland, Ohio, Home & Flower Show, February 28 to March 8. The exhibit included a completely equipped, ultra-modern kitchen featuring separate built-in top burner and oven-broiler Gold Star ranges installed to save time and steps. Philip W. Hunt, Great Lakes division manager for Caloric, planned the exhibit.

1948 the Protane Corp. has undergone rapid expansion as a marketing organization engaged in retail, wholesale and industrial sales and distribution of L. P. gas and appliances. From an original base of 17 operating districts, the firm now has 32 districts in the United States, 19 in Venezuela, 5 in

Puerto Rico, and 2 in Cuba.

The Protane Corp. was incorporated in 1923 after actual production of liquefied petroleum gases on experimental bases which started as early as 1919. In 1955 the administrative offices were moved from Erie, Pa., to Cleveland.

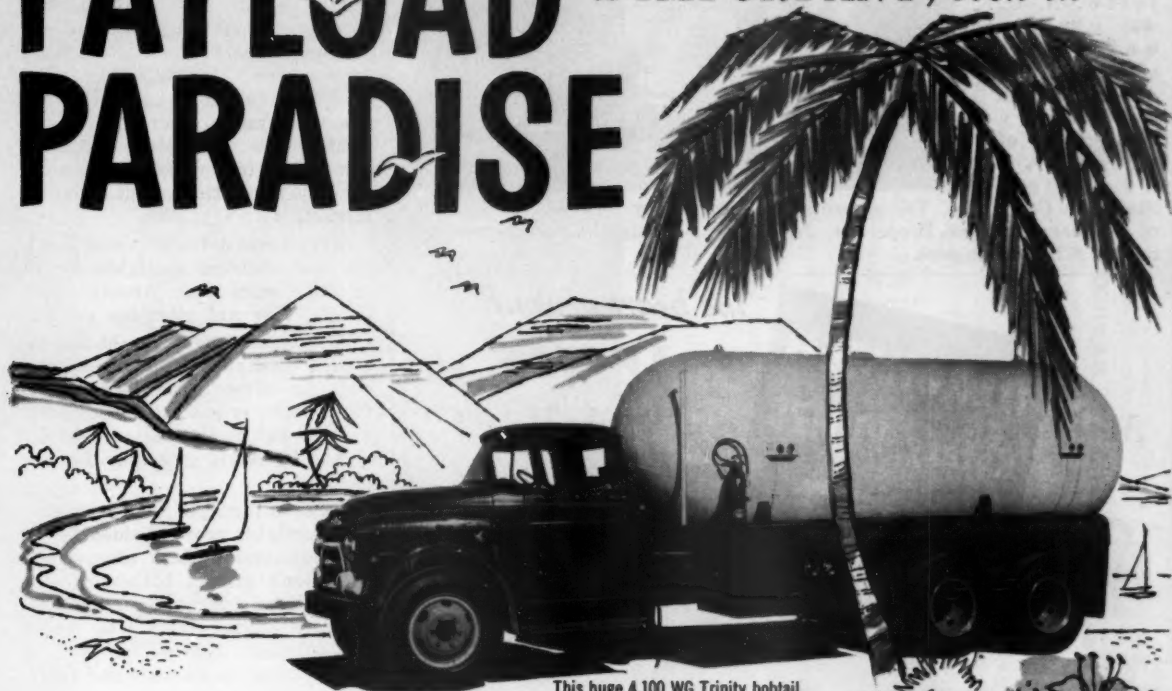


Infra-red heat from Perfection-Schwank generators keep workers warm even when air temperature falls below "comfort level." The units provide heat where it is needed, permit Junkin Safety Appliance Co., Louisville, Ky., to heat only half of an unpartitioned building in severe weather. Previously, Junkin had used two forced air space heaters, totaling a 185,000 Btuh input; but they didn't provide sufficient heat. Propane is supplied from a tank outside the building.

Honolulu Gas Company knows . . .

PAYLOAD PARADISE

is IMPORTANT, even in



This huge 4,100 WG Trinity bobtail for Honolulu Gas Co. is probably the world's largest T-1 bobtail in operation.

Palms and pineapples don't alter the picture on profit. That's why Honolulu Gas chose Trinity's 4,100 WG capacity bobtail, fabricated with T-1. Through Trinity's engineering and T-1 steel you get the bonus in pay-load . . . more than 10% increase on every haul! Write, wire or phone TRINITY and discover how T-1 and Trinity's designing can put you in profit paradise.

Trinity Steel's recent merger with Dallas Tank Company has resulted in personnel and plant expansion that provides superior service in engineering and fabrication. Remember, Trinity Steel Company is Number One in the World in the manufacture of LPG fabricated from T-1 . . . the wonder steel!



TRINITY STEEL CO., INC.

4001 IRVING BLVD./DALLAS, TEXAS, U.S.A./PHONE Fleetwood 7-3961

*Latin American Division: Tanques de Acero, S. A. Calle Poniente
150 No. 734, Mexico, 16, D. F., Plant and Sales Office.*



In recognition of his 25 years of service, John MacIntosh of Suburban Rulane Gas Co., Charlotte, N. C., was given a watch and a certificate proclaiming him "honorary chairman" of the LPGA'S Technical Standards Committee.

The presentation was made by Dick Wherry (right) of Southern Propane Properties, Jessup, Ga., during the recent meeting of T & S in Los Angeles.



Wide range of applications seen for gaslights

Sales of gaslights are surging ahead. It was slightly more than a year ago that Arkla Air Conditioning Corp. introduced its gaslights to the national market. During 1958, the firm shipped approximately 90,000 units. It expects 1959 volume to top that figure substantially. On the Arkansas Louisiana Gas system, over 25,000 gaslights were installed in 1958, amounting to approximately a 10 per cent saturation of its domestic market.

Many home developers and builders are utilizing gaslights as an effective sales tool. Among other things, they are attention getters.

A Connecticut restaurant has installed gaslights both inside and out. An airport at North Little Rock, Ark., is putting in gaslights runway lighting, using a model designed by Arkla especially for the purpose.

Other advantages include the fact that gaslights provide added safety by illuminating dark places, and they don't attract bothersome insects. Motel operators, in particular, are finding them well suited for entrance lighting, as well as for dressing up grounds and swimming pools.

Strengthened requirements for relief valves noted

Gas appliance and equipment manufacturers are calling attention to more stringent demands in the new American Standard listing requirements for relief valves and automatic gas shut-off devices for hot water supply systems.

The new requirements, effective last January 1, were approved by the American Standards Association in October and sponsored by the AGA. Copies are available at \$1.50 each from AGA Labs, 1032 East 62nd St., Cleveland 3, Ohio.

United Gas Improvement buys McNay Gas Corp.

The United Gas Improvement Co., Philadelphia, has purchased from Harry Ward the physical assets and inventory of McNay Gas Corp., trading as Ward Bottle Gas, Ephrata, Pa. UGI will continue to operate the enterprise through its subsidiary Ugite Gas, Inc., formed to handle its bottle gas business.

E. H. Smoker, president of the

the heart of your

BLACKMER
Rotary PUMPS

LP-GAS
handling system

For safe, dependable service, no other pump gives you so many valuable features

- ★ Ideal for truck, bottle filling or bulk plant installation.
- ★ Heavy duty, anti-friction bearings at both ends of the shaft — completely protected from the pumpage.
- ★ Cartridge-type mechanical seals protect bearings and eliminate packing gland maintenance.
- ★ Non-metallic sliding vanes — "self-adjusting for wear."
- ★ Easily replaced wearing parts.
- ★ Differential pressures up to 100 psi and hydrostatic pressures up to 1250 psi.

WRITE FOR BULLETIN 500



"liquid materials handling"® equipment

BLACKMER

BLACKMER PUMP COMPANY, GRAND RAPIDS 9, MICHIGAN

See Yellow pages for your local sales representative



T-1 BEAIRD PAYLINERS

**HAUL BONUS GALLONS
EVERY TRIP**

You get a big Payload Bonus when you spot a Beaird Payliner under the loading rack. They load up to 500 extra gallons—legally—compared to lower tensile strength steel LP-Gas transports.

Beaird's Leadership Engineering and Controlled Quality Construction puts an added bonus in everyday operation through better design and lower maintenance costs.

Every step in Payliner construction from T-1 Steel plate to finished transport is performed at Beaird and under Beaird's rigid inspection procedures. That's why you can't beat Payliner quality, design or dependability... at any price.

Check the extra value built into a Beaird T-1 Steel Payliner.

- Manhole in vapor area • ICC lighting with vapor proof wiring in conduit
- Gleaming white automotive enamel finish over sand blasted surface • Gauges on curb side center of tank • Recessed relief valves • Box type sub-frame • Nail Diverters • Additional center bottom openings 3" Liquid 2" Vapor • Choice of landing gear (roll down or stiff leg) • Air lines protected by steel conduit
- Adjustable Rubplate

Write today for Bulletin #2805



another **PMF** product

THE J. B. BEAIRD COMPANY, INC.

*A Subsidiary of American Machine & Foundry Company
Shreveport, Louisiana Clinton, Iowa Stockton, California*

LP-GAS & NH₃ EQUIPMENT

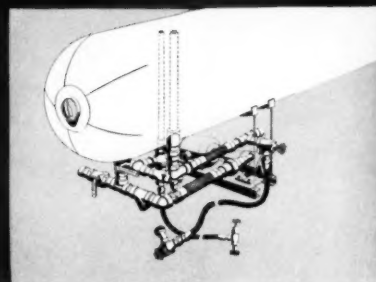
Two Ways to Look at Beard Storage



LP-Gas

IMMEDIATE DELIVERY

General layout of a Beard Packaged LP-Gas Storage Plant



NEW INTERGRAL STORAGE PLANT

A complete Economy Package Plant that will unload from transport into storage, load delivery trucks, fill cylinders and may be adapted to fill motor fuel tanks.

Write now for all the facts on Beard Storage Tanks and completely packaged LP-Gas Plants . . . designed to meet your particular needs.



THE J. B. BEARD COMPANY, INC.

A Subsidiary of American Machine & Foundry Company
Shreveport, Louisiana Clinton, Iowa Stockton, California

United Gas Improvement Co. stated that the acquisition "represents a logical extension of our gas business into areas where it is not feasible at the present time to extend city gas mains."

C. A. Evans elected to General Gas Corp.'s board

The election of Clement A. Evans, Atlanta investment banker, to the board of directors of General Gas Corp. was announced by Hal S. Phillips, president.

Evans, since 1932 president of



C. A. Evans
Board of directors

Clement A. Evans & Co., Inc., Atlanta, is also on the board of governors of the Investment Bankers Association of America.

Peyton is general manager of petroleum department

Charles O. Peyton has been named general manager of Esso Standard Oil Co.'s petroleum specialties department.

He succeeds Donald O. Swan, who will become a vice president of Esso Export Corp. (also an affiliate of Standard Oil Co., N. J.) and general manager of Esso Export's cargo sales department.

Peyton has been assistant general manager of Esso Standard's petroleum specialties department since last May. The department was formed last year to coordinate all company activities dealing with L. P. gas and other specialty products. Swan was its first general manager.

Johnson and Hosack win Tappan's sales contest

Owen A. Johnson, Chicago, Ill., placed first among territory managers in 1958 and the top district

sales manager was William F. Hosack in Tappan Co.'s annual "Top Ten" national sales contest. Results were announced recently by A. B. Ritzenthaler, sales vice president.

"During 1958, Johnson broke quota every month—January through December," Ritzenthaler said.

Johnson joined Tappan in 1953 as manager of the Chicago sales office.

Hosack, who has just completed his first year as manager of the midwest division, took the lead in June and set the pace for the balance of the year.

Runners-up in the district sales

contest are R. J. Swallen, Houston, Texas, and Ross A. Sams, Grove City, Pa.

American Metal Products Acquires Davis Engineering

American Metal Products Co., Detroit, Mich., has announced the purchase of Davis Engineering Corp., Elizabeth, N. J. Davis will continue to operate with present experienced personnel under its new name, "Davis Engineering (a division of American Metal Products Co.)."

Davis has designed and manufactured heat exchangers for the

FAMOUS BROWN

Featuramic

GAS RANGES

MODERN AS TOMORROW



The all new BROWN Featuramic Gas Range is modern through and through. Clean-cut styling, features of the future, and the look of excellence in every respect — this is the range that is as modern as tomorrow. *Finest in Quality, Finest in Performance.*

The new BROWN Featuramic Gas Range will be displayed at the 1959 L. P. G. A. Convention, May 3, 4, 5, 6. Booth 18, the Conrad Hilton Hotel.

Manufactured by

BROWN STOVE WORKS, INC.

CLEVELAND, TENNESSEE

marine and stationary fields since 1915. Among its products are evaporators, distillation plants, condensers, feed-water heaters, oil and water heaters and coolers and a broad range of heat exchangers.

Tappan plans \$3.7 million plant expansion program

An extensive \$3.7 million plant expansion program based on current production needs was revealed recently by the Tappan Co.

The expansion will increase total

production capacity of the Mansfield plant by 30 per cent and the Murray Manufacturing Co. in Murray, Ky., by 50 per cent. The immediate program, estimated at \$1.7 million, is scheduled for completion at the end of 1959. The overall expansion will take approximately two years.

Included in the Mansfield program is the purchase of additional land for a new quarter of a million dollar building.

Tappan has been rapidly expanding its facilities since 1956, when it completed a \$350,000 addition to its Mansfield plant.

GET OUT of "BID-and-BARGAIN" Cut-Price Deals... GET IN as a Burdett FRANCHISE DEALER handling newest, HOTTEST, BEST-BUY LP-GAS BURNERS and FURNACES EVER BUILT

MAKE This 12-Point Selling CHECK..

- ✓ EXCLUSIVE TOP VALUE! Newest, Most Efficient, HOTTEST Burner Yet!
- ✓ Most ECONOMICAL — up to 40% MORE Usable Heat
- ✓ Burns LP-GAS — Propane, Natural, Mixed
- ✓ Pours Out Radiant, Infra-Red and Con- vected Heat
- ✓ SUPER-Capacity; PLENTY of IMMEDIATE Heat — Utmost Comfort.
- ✓ Fiery-Hot CERAMIC PILE LEVELS Out Heat — Avoids Ups and Downs
- ✓ SILENT — Absolutely NOISELESS
- ✓ Entirely AUTOMATIC—No Work, No Worry
- ✓ COMPACT — Fits in Least Space
- ✓ 100% SAFE Automatic Shut-Off
- ✓ CLEAN — Handsome Red Enamel Burner
- ✓ Flexible Pricing — Buyer Can Have Burner Installed in present plant at LOW FIRST COST — OR Choose Furnace with Matched Burner complete, at LOWEST FINAL COST.

BURDETT — The Burner Home and Business Have Been Hoping for; Brings Comfort in While Winter Stays Out. Capacities 60,000 to 180,000 BTU. EXCLUSIVE — The BEST! Takes You out of the Price-Cutting Hassle.

Write for Fired-Up Demonstration Plan and Check Tag; Also Exclusive Burdett-Freeman Dealer FRANCHISE.



See the Burdett at the LP-GAS Convention, Chicago, May 3-6; Booth 208.

FREEMAN-BURDETT RADI-HEAT GAS BURNERS and FURNACES

Illinois Iron & Bolt Co., Carpentersville, Ill. • Established 1864

Robert Clay is BPN's new managing editor

Robert Clay has been named managing editor of BUTANE-PROPANE News, succeeding Martin Brower, who resigned recently to accept a position with Lynn-Western Inc., a Los Angeles industrial public relations firm, as head of its news bureau.

Clay came to BPN after 17 months as editor and publisher of *California Sports Car*, a one-man monthly magazine founded on \$72.

Previous to starting his own



Robert Clay
Managing Editor

magazine he worked as assistant editor on three monthly industrial magazines: *Architectural Ceramics*, *Ceramic News*, and *Concrete Masonry Review*.

He also spent 18 months as publicity and public relations writer for the largest life insurance company west of the Atlantic seaboard, Northwestern Mutual Life, Milwaukee; 18 months as news editor for radio station WEMP, Milwaukee; and has sold features to magazines and newspapers as a free lance writer.

Bob has a B. S. degree from Marquette University College of Journalism. He is 31 years old, married and has one child.

Suburban Propane announces six promotions

The promotion of six New Jersey-ites of the Suburban Propane Gas Corp. was announced recently by Mark Anton, president.

L. H. McGuire of Mine Hill, Dover, was promoted from manager of operations to manager of employee relations, a newly created department. Louis A. Katz of Hadonfield, assistant to the administrative vice president, became manager of operations. Edward W. Belt of Basking Ridge, assistant



"LINDE helped us increase our business"

Says Irvin Etscorn, President, Big "3" Gas Company, Louisville, Ky.

"We've been buying cylinders from LINDE since 1949. As one of the largest distributors in the Midwest, we're in a position to compare cylinder quality—LINDE's are the best! We've never received a bad one. And by developing new kinds of cylinders and showing us where they can be used, LINDE helped us increase our business."

Find out for yourself. Any PREST-O-LITE cylinder will show you. It's built to last. One seam, not three for light weight and high strength. Footring designed, constructed, and coated to prevent rust. Every cylinder tested to twice the service pressure.

And be sure to get the facts on how LINDE's Credit Plan keeps the cost below that of any other cylinder. You pay interest only on the unpaid balance. Write Linde Company, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. In Canada: Linde Company, Division of Union Carbide Canada Limited.

"Linde," "Prest-O-Lite" and "Union Carbide" are registered trade marks of Union Carbide Corporation.

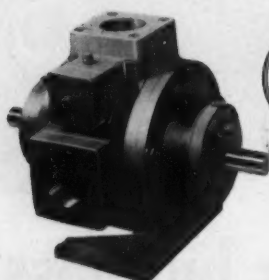


to the controller, was made regional manager. Richard P. Jackson of Whippany, manager of purchasing, was put in charge of product supply and traffic. Rudolph Bruno of Morris Plains, assistant purchasing manager, was given full responsibility for the purchasing department. William S. Bigelow of Maplewood, assistant to the operations manager, was advanced to assistant to the controller.

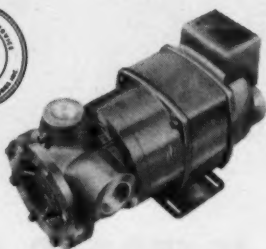
Also announced was the appointment of J. D. Wynn of Anderson, Ind., as assistant to the administrative vice president.



Imperial Gas Co.'s new Yuma, Ariz., office is equipped with a combination heating and refrigerated air conditioning plant. Gaslights in front of the office burn 24 hours a day.



CORKEN CORO-VANE
Truck pumps and stationary units for fast liquid transfer



CORKEN CORO-FLO
For filling cylinders and fuel tanks, fast.

So economical to operate and so quiet you can hear the cash register ring up the profits!

FREE DEMONSTRATION
How To
S-T-R-E-T-C-H DOLLARS
Corken Booths 47 and 48
National Convention

There's a Corken
Distributor Near You



CORKEN'S INC.

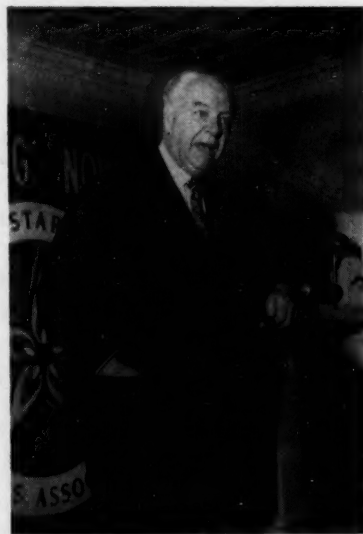
P. O. Box 1062
Oklahoma City, Okla., U. S. A.

Imperial Gas Co. opens new Yuma plant, office

The Imperial Gas Co., distributor of Rockgas-Propane, formally opened its new plant office and appliance showroom on January 31 3 miles east of Yuma, Ariz.

An all-day open house featuring prizes, gifts and refreshments for all drew crowds from the time the office was opened in the morning until it was closed that night.

John Nash, local manager, explained that his company put in larger storage and a modern building to keep pace with the growth of the Yuma area and to provide for future needs of "Rockgas" customers.



Exactly 20 years after coming to Brooklyn-Union Gas Co. to help launch the "CP" program for quality gas ranges, E. Carl Sorby,

Names you know
name
LMC!



PETROLANE SUPPLY CO.; Billings, Montana; a division of Petrolane which operates throughout the West.



PHILIPPINE ACETYLENE Co.; Manila; operating in Manila and throughout the Philippine Islands.



EARL BRAY, INC.; Cushing, Oklahoma; one of the largest transport companies in the West.



KOSANGAS; Copenhagen, Denmark; has associate companies in Ceylon, Cyprus, and throughout the European Continent.

Well-known companies around the world and throughout the nation, depend on LMC for more profitable transportation . . . You, too, can profit by LMC's many years of experience in engineered liquid transportation. Write, wire, or phone today for completely illustrated literature, prices and payloads.

LUBBOCK MACHINE & SUPPLY CO.



Buy on the

LMC
LOW MILEAGE COSTS

Box 1899 PO 2-8261
LUBBOCK, TEXAS

Budget or Lease-Purchase Plan

Geo. D. Roper Corp., does the same for Gold Star. He emphasized the need for better salesmanship in selling upgraded merchandise. "Tell them the price—that's what they're asking, that's what they want to know. But there's more to price than what's on a price tag. Don't embarrass a customer by making her ask 'how much down?'"

Four Fuelane dealers win trips to Bermuda

Four dealers and their wives left April 19 for one week in Bermuda as a result of drawings held at Fuelane Corp.'s Silver Anniversary sales meetings. The meetings were held during the first two weeks of February at Pittsfield, Me.; Harrisburg, Pa.; Syracuse, N. Y., and Saratoga Springs, N. Y.

Those making the trip are Mr. and Mrs. John Franklin of John Franklin, Inc., Shippensburg, Pa.; Mr. and Mrs. Delbert Silmsner of Wm. L. Smith Hardware Corp., Massena, N. Y.; Mr. and Mrs. C. Reynolds Needham of Cartmell Sales & Service, Inc., Middlebury,

Norco Inc. President Norman H. Lee (second from left) was recently congratulated on the installation of a testing-teaching unit for the Vaillant tankless instant water heater in the Los Angeles Norco headquarters. Congratulating him is Hans Vaillant (right) of Ramscheid, Germany, president of Vaillant Co. Looking on are Vaillant officials.



Vt., and Mr. and Mrs. Alvah Malory of Central Maine Gas Service, Bangor, Me.

M. J. Board, secretary-manager of Johnstown Suburban Gas Co.,

Johnstown, Pa., was awarded \$250 by Charles M. Francisco, president of Fuelane. Board's company showed the greatest increase in growth, 1958 over 1957, of all "Happy Cooking" dealers. Board said his employees would share equally in the prize.



NEW LP GAS-FIRED MONEY MAKER

the Johnson Radiant Pig Blanket

specially designed to keep pigs warm and dry in winter

Now you can offer hog raisers a brooder heater that takes the gamble out of winter farrowing. The Johnson Radiant Pig Blanket keeps two litters warm and dry in the worst winter weather. Lets the farmer farrow in the winter and get hogs to market when prices are highest.

Radiant Pig Blankets are good money-makers for you too. They're popularly priced at \$43.95, every hog raiser can afford them. And since they're fueled by LP gas, you have a good bottle gas customer with every Pig Blanket you sell.

Get in on the sure fire sales and profit that are yours with the Johnson Radiant Pig Blanket. Advertising and promotion aids are yours free.

Write today for complete information.



Sell benefits, not price retailers are told

"Home laundry appliance advertising should sell consumers on *how* to get clean clothes through the *benefits* of using laundry equipment, not on the basis of *price alone*" according to Guenther Baumgart, president of the American Home Laundry Manufacturers' Association.

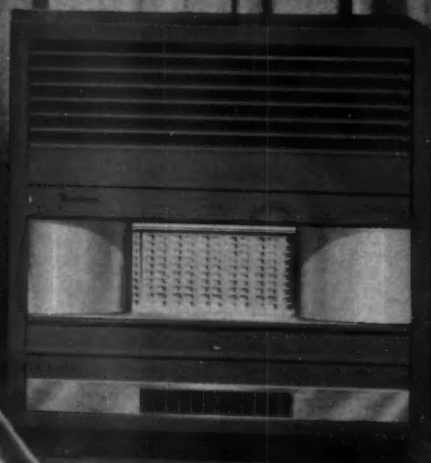
"All this emphasis on benefits, features, styling and all the other pluses is forgotten in the enthusiasm to sell on price alone," he said. "This enthusiasm could better be directed into a more positive approach to coincide with the national advertising theme of selling benefits, features, washability, etc."

White-Rodgers creates marketing, research div.

White-Rodgers Co. has created a marketing and research division, according to R. A. Sherer, vice president of the St. Louis-based manufacturers of temperature controls.

THE Dearborn®

REGENCY



THE WORLD'S FINEST GAS AREA HEATER

DEARBORN STOVE COMPANY, DALLAS

REGIONAL OFFICES: DALLAS, ATLANTA, CHICAGO, LOS ANGELES, SAN FRANCISCO

Combining the functions of several previous groups, the new division will be charged with research and reporting of marketing trends affecting sales, distribution, and production of controls. It will oversee control of sales territories, production rates, and stock levels.

Sherer also announced the appointment of John H. Martin as manager of the division. Martin was formerly marketing and sta-

tistical coordinator for White Rodgers, before that chief statistician.

Railway Express rates threaten boost

Businessmen are about to be beset from all sides by higher shipping and delivery costs.

Among the latest to rise or threaten to go up are parcel post rates, most other mail rates, and Railway Express Agency rates.

The express agency recently

filed with the Interstate Commerce Commission a proposal to boost rates by 15 per cent on shipments from retail stores to customers. Unless blocked, it was due to go into effect March 23.

Express rates were raised by the ICC last October on almost all shipments but those to customers from stores.

A general 3.5 per cent boost in the agency's rates for smaller shipments (less than carload lots) is also under study at the ICC.

National sales tax seen in not-distant future

The likelihood that the U. S. will have a national sales tax in the not-distant future is growing stronger.

Joel Barlow, a leading Washington tax attorney, believes a sales tax is "inevitable" in the kind of world we live in. In order to pay for national defense, the Congress inevitably is going to have to enact some kind of sales tax, Mr. Barlow believes. A rate of about 1½ per cent on all products, except food, clothing, and medicine has been proposed by Vice President Nixon. Mr. Barlow believes a 1½ per cent rate would be "about right."

NEWS NOTES

The National LP-Gas Council announces that the months of August and September were selected for the group's first consumer "Sweepstakes." Local-level Sweepstakes kits were mailed to supplier salesmen about April 1 with a request to explain the program, and kit to all dealers, members and non-members alike. July 1 is the deadline for acceptance of new Council members' entries.

Carrier Corp., Syracuse, N. Y., announced it will merge a wholly-owned subsidiary, Cambridge Corp., into the parent company as a division called Cambridge Co. Cambridge manufactures storage and transportation equipment for L. P. gases and is located in Lowell, Mass.

Turner Corp. is the new corporate name adopted by the Turner Brass Works, according to an announcement by Harold V. Engh, president, following a stockhold-



WHY SO MANY FLEETS STANDARDIZE ON

VIKING LP-GAS TRUCK PUMPS

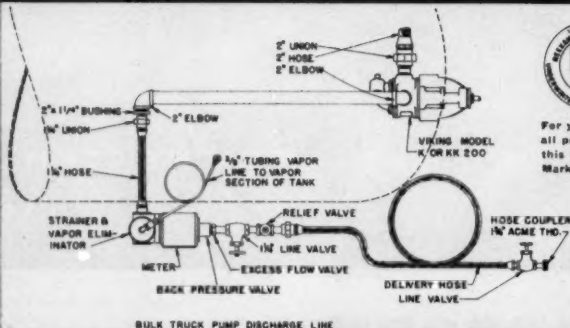


- ... No leakage. (Features mechanical seal and O-ring gaskets for non-leak operation.)
- ... No vapor purging devices. (Fast, positive pumping using Viking's famous gear-within-a-gear pumping principle. Eliminates extra gadgets.)
- ... Available with return-to-tank valve on pump head for complete safety and quiet operation.
- ... Equipped with integral thrust bearing for continued long life.
- ... Available in 3 sizes — 28, 38 and 70 G.P.M.

And in addition, all Viking LP-Gas truck pumps come complete with 28-page manual, including many installation diagrams similar to the one illustrated below.

WRITE TODAY FOR YOUR COPY OF THIS FREE MANUAL TS-128.

SEE THE VIKING PUMP DISPLAY BOOTH 157, LP-GAS SHOW CONRAD HILTON HOTEL, CHICAGO, MAY 3-6



For your safety, all pumps carry this Underwriters Marker

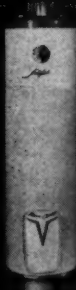


VIKING PUMP COMPANY

Cedar Falls, Iowa, U. S. A. In Canada, it's "ROTO-KING" pumps
SEE OUR FILE IN BUTANE-PROPANE CATALOG

*Holds lots ...
stays hot!*

*Yes, Ma'am.
Just like your new DAY & NIGHT
Jetglas WATER HEATER. Plenty
of hot water and plenty hot.
Can't rust, either.
Best in the business.
Ask anybody.*



DAY & NIGHT JETGLAS

... the feature that has helped most to make DAY & NIGHT the most-wanted water heater in the business. Customers like the idea of **guaranteed** extra-long life. Lots easier for you to sell. You'll like DAY & NIGHT because you'll **never** get expensive call-backs. Models to fit every need ... every budget ... The Century ... The Starfire ... The Jupiter. Builds LP gas volume — yet maintains the economy your customers like. Gets more LP units operating. Sell **Jetglas**. Write today for full facts on **Jetglas** — and the complete DAY & NIGHT Water Heater Line. **DAY & NIGHT Manufacturing Company**, 855 Anaheim-Puente Road, La Puente, California.

ers' meeting recently at Sycamore, Ill. Reason for the change is a product diversification and marketing modernization program which obsoletes the original named, used since E. F. Turner established the firm in 1871.

"How and Where to Buy Government Surplus" is the title of a handbook that shows how to bid and buy from the U. S. Government. Special section indicates where jeeps, forklifts, and trucks can be purchased. Price of the directory is \$1 postpaid. Orders

should be sent with check or money order to Aviation Surplus Center, Dept. BPN, York, Pa.

Shipments of Arkla-Servel All-Year gas air conditioning units for February 1959 exceeded any previous month in the history of the company. A total of 931 units were shipped from the Evansville factory of Arkla during February, compared to the highest previous month's shipments of 834 units, and compared to a total of 492 units shipped in February 1958. Shipments for the first two

months of 1959 totaled 1595 units, compared to 949 units for the first two months of 1958.

Robert L. Rice Co., 1258 First Ave., South, Seattle, Wash., has been appointed distributor of Norge home appliances in 18 eastern Washington counties, it was announced by the Norge division of Borg-Warner Corp. The company will be responsible for sales to dealers as well as all service in the area. Headquarters site includes 80,000 sq ft of space for warehousing appliances and stocking parts.

Scheduled for completion in May is Security Valve Corp.'s new 11,000 sq ft office and plant facility in South Pasadena, Calif., according to Walter E. Jorgensen, company president. The new building will provide expanded office, engineering development, and manufacturing facilities for the company. The company is presently located in leased facilities in Glendale, Calif.

The William Wallace Co. will build a complete manufacturing plant at Logan, Ohio, it was announced by Alan Kinkad, president. Total cost of the new facility is estimated at three quarters of a million dollars, and present building schedules call for completion of the 55,000 sq ft building by July 15. The complete line of Metalbestos products will be manufactured at the new Ohio facility, as well as at the headquarters plant in Belmont, Calif.

Phillips Petroleum Co. has announced a summer-fill discount program for its LPG distributors, which was effective March 23. The discount will be \$0.01 per gal. in the Midwest, Mid-Continent and Northeastern areas. The announcement stated that due to relatively lower prices for liquefied petroleum gas in some east coast and southern parts of the country, the discount will vary from \$0.005 per gal. in a few Mid-Atlantic states to \$0.0075 per gal. in the Southeastern and South Central areas. Discounts under the program will be withdrawn Sept. 1, 1959.


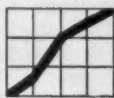
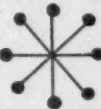



Municipally-owned gas distribution systems were still running in the red in 1957, new government figures show. A report by the U. S. Census Bureau covering operations through 1957—the latest year in which figures are

LOOK
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BEACON...

for
THE MARKETING OF
L-P GAS PRODUCTS

BUTANE • PROPANE
BEACON
PETROLEUM COMPANY
P. O. BOX 2100 • PHONE LUHwy 5-5553 • TULSA, OKLA.

PHOTOGRAPH BY HAROLD M. LAMBERT

Again in 1958 **MORE** Dealers sold **MORE** Warm Morning Gas Heaters! These beautiful,  feature-packed gas heaters again led the industry in sales gains  with a **34%** increase over 1957. New  **Top-O-Matic** Controls will rocket  Warm Morning Sales to a new high in **1959**. Easier sales, bigger profits  can be yours with  fastest selling gas heaters!

Warm Morning Offers You:

- Big Early Booking and Anticipation Discounts!
- Liberal Fall Dating Plan!
- Powerful Advertising and Promotional Support!



Warm Morning
GAS HEATERS

Send postcard today for full color catalog, prices and information about co-op advertising, broad-side mailing program, and other powerful advertising support backing WARM MORNING gas heater dealers.

LOCKE STOVE COMPANY

114 F. West 11th Street

Kansas City 5, Missouri

MANUFACTURER OF WARM MORNING HEATERS
AND INCINERATORS AND MOORE'S GAS HEATERS

available—show that total expenditures exceeded revenues by about \$5 million.

The Walworth Co., New York, N. Y., announced recently that its subsidiary, Grove Valve & Regulator Co., Oakland, Calif., will act as sales agent for specialized lubricated plug valve products.

Petrolane Gas Service, Inc., Long Beach, Calif., reports unaudited figures for the year ended Dec. 31, reflect an approximate 12 per cent increase in sales and other revenue. Also noted was an approximate 14 per cent increase in earnings, equivalent to \$1.68 a share on the 517,500 shares outstanding on Dec. 31.

Manufacturers' shipments of gas ranges in January totaled 148,600, up 15.7 per cent from the same month in 1958, GAMA announced. January shipments of free-standing ranges totaled 128,300, up 11.2 per cent from 115,400, while built-ins came to 20,300, up 56.2 per cent from 13,000.

Nine German heating, ventilating, and air conditioning manufacturers recently visited the Reznor Manufacturing Co., Mercer, Pa. The European team had attended the annual meeting of the American Society of Heating and Ventilating Engineers in Philadelphia. Their tour was sponsored by the German Trade & Industry Association

The National Petroleum Council recently established three special committees to conduct important studies specifically requested of the Council by the Acting Secretary of Interior. These include: committee on the use of radio and radar; committee on petroleum storage facilities, and committee on national emergency oil and gas mobilization.

Manufacturers of automatic gas water heaters started 1959 at a busy pace, shipping 254,300 units in January, 8 per cent more than the 235,400 in the same month a year earlier. The latest figure was larger than that for any 1958 month except October, when 265,900 units were shipped.

Factory sales of home laundry appliances during January were 18 per cent above a year ago, AHLMA announced recently. January sales amounted to 423,633 units, as compared with 359,075 units in January 1958. Gas dryer sales went up 31 per cent and electric dryer sales were up 12 per cent.

Phillips Petroleum Co.'s new sales contest is in full swing. It started on January 1 and runs through August 31. Winners will be determined on an overall basis with L. P. gas jobbers among the contestants.

Charlie Wilkerson Gas Co., Panama City, Fla., has just opened its doors for business. Manager and vice president of the new LPG firm is Robert Sowell. President is Charlie Wilkerson. The new company will sell and install appliances, besides delivering propane and butane to homes and trailer parks in the area.

American Meter Co.'s sales office serving New England has been moved to 250 Stuart St., Rooms 901-2, Boston 16, Mass., according to Charles D. Mitchell, district sales manager.

Available to National LP-Gas Council members only is a blow-up of an advertisement which ran in *Better Homes & Gardens*. The first copy is free. Additional copies cost 12 cents each. Also available is a proof of the 1959 series of the Council's "Changing Scene" cartoons released to 11,000 editors of the nation's weekly



Rochester Gauges has it!

World famous Rochester Gauges are performing the toughest jobs with trouble-free, rugged ease — day after day! Rochester's complete line of easy-to-read Criterions, the larger Magnetrons, and compact Flow Indicators truly indicate that "Rochester Gauges the Industry."

Demand Rochester Criterion gauges on your next tank order or order direct from factory.



ROCHESTER GAUGES, INC.
OF TEXAS

2425 CAROLINE • DALLAS, TEXAS

SALES OFFICES: DALLAS; ATLANTA; DENVER; CLEVELAND; ROCHESTER;
PHILADELPHIA; SAN FRANCISCO; LONDON, ONTARIO

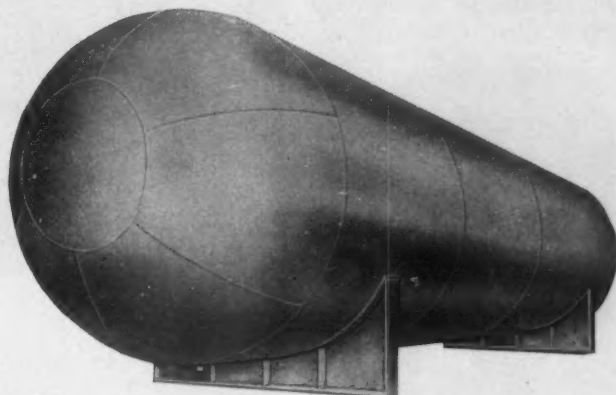
...for a better

Contract

CHECK

✓ **STORAGE**

Break the bonds of limited storage capacity with Master LPG Storage Vessels. We build to your specifications in ANY size. Full X-Rayed seams assure absolute safety. Meets all code requirements. Send for Master Storage Folder.



✓ **TRANSPORTS**

Dealers' choice . . . MASTER transports of miracle light-weight T-1 Steel for BONUS payloads. Engineered and built to meet your specifications up through 10,000 water gallons. Fabricated to meet the latest codes. Fully X-Rayed and sand blasted. Recessed fittings. Simplified plumbing system. UL Approved. Send for Master Transport Folder.



✓ **DELIVERY TRUCKS**

The streamlined modern Master Time Saver is the Cadillac in the field. Changing trucks is a breeze as all working parts are mounted as a single unit on the platform at the rear of the tank. Single or double barrel units for immediate shipment, or built to your specifications. Shipped complete with truck of your choice. Send for Master Delivery Truck Folder.



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TRANSPORTS



TANK TRUCKS



STORAGE



DOMESTIC



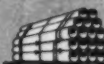
FILLING STATIONS



FARM CARTS



REFINERY



LINE PIPE



The name is Magic she *knows* Magic Chef is the Quality range

In today's competitive market, where brand familiarity and acceptance play such an influential role in consumer purchasing, Magic Chef is the range the modern homemaker knows and trusts.

For that matter, she grew up with Magic Chef. In her home, at school and as a young homemaker

she has learned to trust the quality of Magic Chef.

As your customer she recognizes Magic Chef as a guarantee of range quality . . . *an invaluable sales asset for you.*

Are you enjoying the sales benefits of Magic Chef's outstanding consumer acceptance?



Cleveland, Tennessee

See the Magic Chef exhibit spaces 91-92-93.

newspapers. Last year's series produced 6000 unduplicated new clippings.

Publication of the 1959 Verified Directory of Manufacturers' Representatives has been announced by the Manufacturers' Agent Publishing Co., 505 Fifth Ave., New York 17. It lists more than 15,000 manufacturers' domestic and export representatives in the United States, its territories and Canada. The listings are arranged geographically and include the principal products each "rep" carries and the trading area covered. The price is \$20.00, with a 10-day unconditional money back guarantee.

A proposal for a pipeline to transport butane, pentane, and propane to the Great Lakes area from western Canada is under discussion by Interprovincial Pipe Line Co., according to T. S. Johnston, president.

The hydronic heating industry scored substantial sales gains in 1958 over the preceding year following an upsurge which started in the summer months and continued during the fourth quarter, the national Better Heating-Cooling Council reports.

A new magazine rotary press uses a dryer that operates on propane or natural gas, can print an illustrated journal on both sides of the paper, and deliver it dry and folded at speeds up to 1000 ft a minute.

The secret of its speed is the drying process: the paper passes at finely-calculated speeds through a naked flame which dries the ink but does not scorch the paper.

After passing through the flames the web is cooled by rollers fitted to a continuous water supply to offset the condensation in the chamber, where tremendous heat is generated. Automatic control prevents the heat from rising above the safety limit.

The press was designed and built in England for a Winnipeg, Canada, company.



**LIKE LOOKING INTO
YOUR CUSTOMERS' FUEL
TANKS**

Every Day!

FREE BOOKLET BRINGS YOU "20 NEW
WAYS TO PROFIT BY DEGREE DAYS"

**NOW for the first time
You can keep an eye on
Your customers' fuel
tanks . . . day by day!**

The amazing accuracy of the new improved Johnson Fuel Demand Meter is putting the retail fuel business of many dealers throughout the country on a new profitable basis. It eliminates guess work by putting an end to run-outs and emergency calls, by automatically and accurately computing "Effective Degree Days."

No other degree day meter has the EXCLUSIVE Johnson "Automatic Eye" that actually brings you 20 new ways to profit by degree days.

**SOLD WITH A MONEY BACK
GUARANTEE OF SATISFACTION**

By

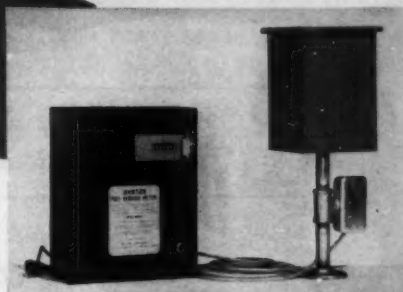
Johnson
DEGREE DAY SYSTEMS

DIVISION OF OAKLEY and OLDFIELD
Home Heating Specialists for over 50 Years
329 S. Pitcher St., Kalamazoo, Michigan

THE NEW IMPROVED

Johnson
**FUEL DEMAND
METER**

**KEEPS AN AUTOMATIC EYE ON THE
PROFIT END OF YOUR BUSINESS**



Measures Combined Effect of
Temperature, Wind, and Sun!

Small, compact, and dependably accurate, the new improved Johnson Fuel Demand Meter will double the efficiency of your selling operation by keeping an automatic eye on the profit end of your business!

Invented by M. Lee Johnson, nationally known home heating specialist. The new improved Johnson Fuel Demand Meter is now in daily use by successful LP gas and fuel oil dealers throughout the United States, Canada, and Europe.

Send For

FREE BOOKLET!

JOHNSON DEGREE DAY SYSTEMS

Dept. 8-5
329 S. Pitcher Street
Kalamazoo, Michigan

Gentlemen:

Please send copy of "20 New Ways
To Profit by Degree Days" To:

Company

Street Address

City and State

Attention of

MAIL THIS COUPON TODAY

FOR FREE BOOKLET "20 NEW WAYS
TO PROFIT BY DEGREE DAYS"

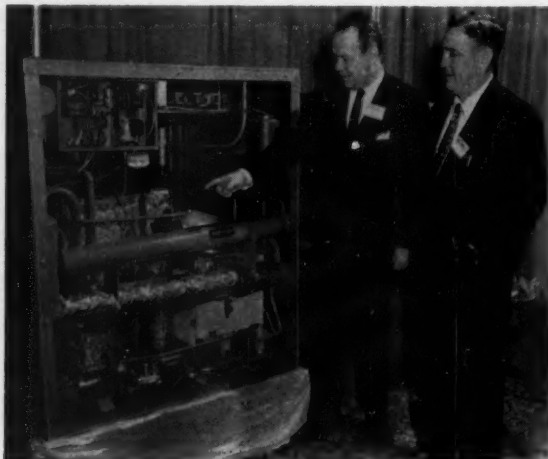
WHAT'S NEW

IN PRODUCTS AND TRADE LITERATURE

For further information on items reviewed in this section use the convenient post-paid Readers' Service Cards on pages 99, 100

Gas air conditioner soon to be produced by Bryant

David W. Hoppock, Bryant's vice president and general sales manager, explains the operation of the new gas air conditioning unit to Bart Frary, Bryant-Frary Co., Rockford, Ill.



"Bryant plans to sell the air conditioner through its regular distribution channels with much of the limited early 1959 production going to the gas utilities and distributors who participated in the 1958 field test program," said David W. Hoppock, vice president and general sales manager. Sales through Bryant dealers will begin as rapidly as available production permits and dealers can be trained in sales, installation and service.

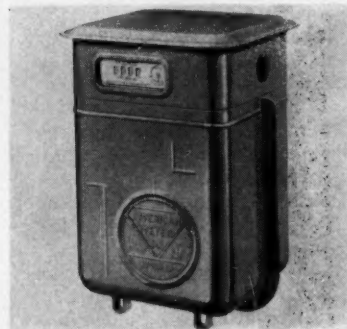
Circle 1 on Readers' Service Card
Bryant Manufacturing Co. has unveiled its new gas-fired air conditioner. Shortly after the merger of Bryant with Carrier Corp. in 1955, development work was concentrated on an absorption-cycle outdoor unit using ammonia and water as the refrigerant and absorbent.

"The unit, which will soon go into production, is entirely air-cooled, may be installed outdoors, is quiet and automatic in operation, and is practical for add-on application in conjunction with existing furnaces as well as with new Bryant furnaces," according to

Samuel F. Shawhan, the firm's president and general manager.

After the successful performance of prototypes in residential installations, Bryant proceeded on a more elaborate field testing program. As a result, the firm started producing "hand-made" machines early in 1958 and, in cooperation with gas utilities, 69 units were operated in residences in various parts of the country served by 42 different gas companies.

Based upon the results of this extensive field test program, several minor modifications were incorporated in the final design which will soon be in production.



Welded LPG meter simplifies readings

Circle 2 on Readers' Service Card
A welded steelcase meter for use with L. P. gas was announced by American Meter. Designated WC-45-LPG, it contains an internal, counter-type index for simplified meter reading. The meter has a removable soldered top for easy meter

FOR MORE INFORMATION

about New Products
in this Issue

Each New Product or Trade Literature item reviewed in this issue is numbered. Circle the corresponding numbers on the Readers' Service Card; then PRINT your name, title, company and address plainly and drop the card in the mails (no postage is needed).

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News

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CITY & STATE _____

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BUTANE-PROPANE
News

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PERMIT NO. 36
New York, N. Y.



BUSINESS REPLY CARD
No postage necessary if mailed in the United States

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BUTANE-PROPANE
News
Readers' Service Dept.

P. O. BOX 106

VILLAGE STATION
NEW YORK 14, N. Y.

FIRST CLASS
PERMIT NO. 36
New York, N. Y.

BUSINESS REPLY CARD

No postage necessary if mailed in the United States

POSTAGE WILL BE PAID BY

BUTANE-PROPANE
News
Readers' Service Dept.

P. O. BOX 106

VILLAGE STATION

NEW YORK 14, N. Y.

FIRST CLASS
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News
Readers' Service Dept.

P. O. BOX 106

VILLAGE STATION

NEW YORK 14, N. Y.

BUTANE-PROPANE
News

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COMPANY _____

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CITY & STATE _____

May, 1959

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FOR MORE INFORMATION

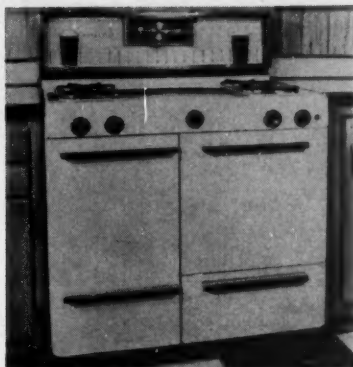
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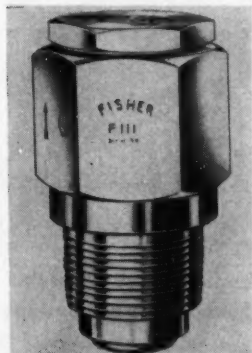
accessibility. The tangent can also be adjusted through the meter inlet without removing the top. Rated capacity is 45 cfh propane and 40 cfh butane at $\frac{1}{2}$ -in. wc differential—5 psi working pressure.



Cribben & Sexton introduces Value and Gold Star models

Circle 3 on Readers' Service Card

A deluxe 36-in. automatic gas range selling for less than \$200 is announced by Cribben & Sexton. According to the company, it is a top value range, with quality features ordinarily found in much higher priced products. These features include "burner with a brain," "obedient burner" cooking, "smoke-proof" broiling, and "air conditioned" baking. The range is backed by a major advertising and promotional campaign. The company also announced the addition of eight Gold Star ranges to its line. They are offered in 40, 36, and 30-in. models with Supreme and Custom styling.



Lock-type excess flow valve provides gas-tight seal

Circle 4 on Readers' Service Card

"Saf Evac," an improved lock-type excess flow valve, is being introduced by Fisher Governor Co.

Vent--magic WALL HEATER

Patent Applied For

Dramatically different; Complete, Compact, Safe. Mounts on (not in) any outside wall. No chimney, no ductwork. Sealed exchanger; burnt gases cannot enter room. Expansive louvered panel frees maximum heat quickly; accents warm floors. Easy to install and service; all controls handy via front Service Door. Completely automatic; 100% Safety Shutoff. A.G.A. Approved. Beautifully finished in Coppertone & Cafe' baked enamel.

•BLOWER is optional; easy to add anytime. VENT is weatherproof, windproof, pestproof. Features Aluminized Steel construction.

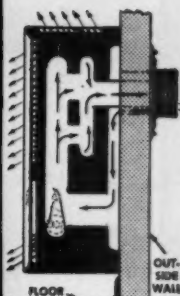
WRITE FOR THESE

- ▶ V-O-M SEALED WALL HEATERS, ask for Specs File No. 773.
- ▶ RECESSED WALL HEATERS, ask for Specs File No. 753.
- ▶ CATALOG NO 59, for Consoles, Utility & Fireplace Heaters.

**NO/
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V-O-M MAGIC VENT BREATHES THRU WALL



HERMETICALLY SEALED HEAT EXCHANGER

**COMPLETELY
AUTOMATIC**

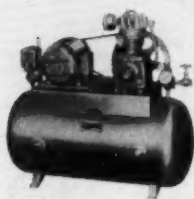
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IN EVERY 20



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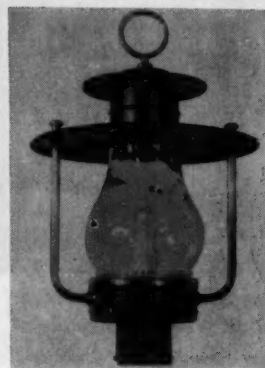


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heat x BREWSTER, NEW YORK • TORONTO, CANADA • PORTSMOUTH, ENGLAND

Designed to provide safe liquid withdrawal with a minimum of inconvenience to the installer, it is equipped with a special sealing plug and metallic gasket in the outlet to provide a gas-tight seal. A slot in the plug allows fast discharge of any liquid in the valve when the plug is loosened. Approximate closing flow is 25 gmp liquid propane.



Gas lamp is all-weather aluminum construction

Circle 5 on Readers' Service Card
"The Belle" gas light is available with clear or frosted hurricane chimney. It is of all-weather aluminum construction with solid brass trim. The lift-top affords easy access to the interior of the lamp. Some features are: interior stilling chamber to reduce flicker; a specially designed flow regulator and filter which allows illumination adjustments from pilot light to maximum intensity of mantle rating. It is 20½ in. high, 13¼ in. wide, 3¼ lb net weight and, 6¾ lb shipping weight.



Large capacity cylinders fit present mobile homes set-ups

Circle 6 on Readers' Service Card
Two new cylinders, with propane capacities of 28 and 40 lb, are now being manufactured by Linde Co. Made exclusively for home trailer use, the cylinders will fit all present 20 lb cylinder installations. They have been designed specifically to

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PERFORMANCE



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Peerless® GAS CONSOLE HEATERS with Counter Flow Heat (Optional)

Peerless performance means *profits* to you. Because a Peerless puts out heat—lots of heat where it's needed and does it economically.

We recommend the Peerless with Counter Flow Blower Attachment for those really tough jobs where gravity circulation of heat is not adequate. In fact, the boost given in warm air circulation is ample for heating several rooms. Peerless Counter Flow equipment is available for all 50,000 and 65,000 BTU heaters, either radiant or closed front, and is delivered complete with its own temperature *controls* and six feet of electric cord. It can be bought with the new heater or installed later.

There is a *complete* line of expertly-engineered Peerless gas console heaters—closed front models from 20,000 to 65,000 BTU input. *All* models are A.G.A. approved for natural, mixed, manufactured and L.P. gases. And, all include the traditional Peerless quality and smart, contemporary design that has made Peerless the *preferred* model by both dealer and consumer!

Look for us at the Conrad Hilton,
Space 176-177 at the LPGA
Show in Chicago May 3-6.



PEERLESS MANUFACTURING DIVISION
OF DOVER CORPORATION
LOUISVILLE 10, KENTUCKY

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Proudest performers of all time, Enterprise Ranges of our Centennial Line are designed and manufactured with one hundred years of scientific know-how and dependability behind them.

To celebrate our 100th anniversary, we have gone all out to build the finest ranges of all time.

Get *Enterprise* for Profit. *Free floor plan.
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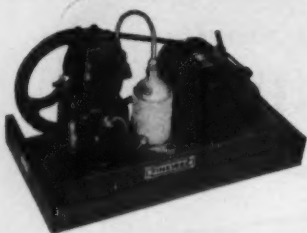
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ALL FINE PRODUCTS

New Fineway LPG TRANSFER UNIT



The modern way to transfer LPG from storage tank to tractor. Fast, easy, safe—transfers 10 gal. per minute. Twin compressor, oil separator and ¼ h.p. explosion proof motor. (6-V. DC—12-V. DC—110-V. AC.)

BRASS & COPPER STENCILS

Made to your specifications. Size, number of letters, design determine price — estimates furnished. Send rough sketch with dimensions, wording, etc. An economical way to identify your tanks.

"YOUR NAME" TANK DECALS



Good advertising and quick identity of your tanks at low cost. Four colors with LPG flame emblem. Two sizes.

RUBBER STAMP KITS FOR CYLINDER & TANK MARKING



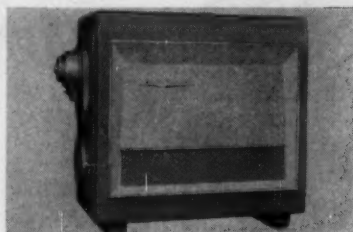
The quickest and most clean-cut way to mark cylinders or customer tanks—complete with ink pad, ink and cleaner. Available with flame emblem and hand set letters or special design. See catalog.

Write for Fine Catalog No. 457 LP

FINE PRODUCTS CO.
6240 OGDEN AVE.
BERWYN (Chicago Sub.) ILLINOIS

For further information use Readers' Service Cards on pages 99, 100

meet requirements for larger propane capacities brought about by the increased use of mobile home L. P. gas appliances.



Duo-Therm line of heaters completely redesigned

Circle 7 on Readers' Service Card

The entire 1959 Duo-Therm line of gas home heaters has been redesigned in new, modern lines and colors. Cabinet styles range from traditional to pure modern functional. The line features gas heaters of from 25,000 to 66,000 Btu input heating capacity. New finishes are basically two-tone.

New tank coating lasts 4 to 6 times longer

Circle 8 on Readers' Service Card

A new Poly-Form non-toxic protective coating for cylinders and tanks is reported to last 4 to 6 times longer than conventional coatings and to cover 2 to 3 times more area per gal. Formulated to be very rigid or flexible, it contains a high percentage of solids. Available in clear or decorator colors, a gallon covers up to 900 sq ft.



Nozzle especially suited for spray-cooling molds, washing

Circle 9 on Readers' Service Card

Betz Fog Nozzle's CW7590 nozzle is suited for use in spray-cooling of molds, washing and many other purposes. The whirl chamber is at

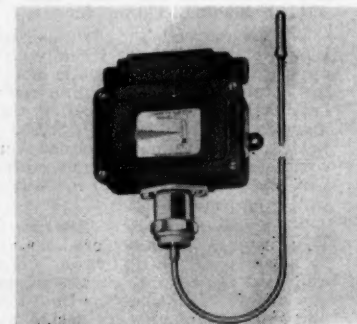
the back of the nozzle with the orifice recessed into the body. The apex of the spray cone is actually flush with the mounting surface. The nozzle is made with ¼ in. male pipe thread. It has a flow rate of ¾ gpm at 40 psi and a spray angle of 90 deg. Other flow rates and angles can be supplied as required.



Roper offers four built-in ovens, ten surface units

Circle 10 on Readers' Service Card

Four built-in gas oven-broiler units and ten surface units are announced by Geo. D. Roper. Surface units include two, four, and five burner units. "Tem-Trol" automatic top burner is featured in many of these units. Two surface units are fitted with a Hudee rim, which mounts snug and flush with the counter-top. Two built-in oven-broiler units feature automatic clock control. An oven rotisserie is also offered on two ovens.

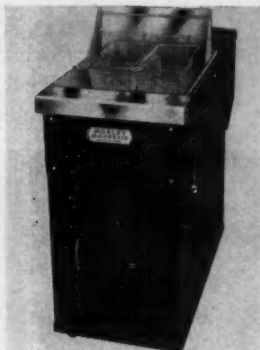


Safety switch eliminates pilot flame failure danger

Circle 11 on Readers' Service Card

Partlow announces its Model SBS safety switch which automatically goes into action and shuts down both pilot and main fuel flow by actuating a solenoid valve. It may be mounted in any location or position, as long as the instrument body

is not subjected to abnormally high temperatures. Proper operating temperature is between 1200 and 1400 deg. F.



Deep fat fryer converts gas into infra-red heat

Circle 12 on Readers' Service Card

Morley-Majestic has added a deep fat fryer to its line of gas commercial cooking equipment. Increased heating surfaces with redesigned jet burners, thermostatic temperature control and complete automatic safety pilot are standard equipment. Jet deflectors with ceramic radiants convert gas into infra-red heat for maximum efficiency. AGA and NSF approved.



Budget-priced "Sentry" gaslite is sixth in Arkla's line

Circle 13 on Readers' Service Card

The "Sentry," a budget-priced model gaslite by Arkla, is the sixth light in the company's line. It is designed for post installation and features a two-tiered, ornate-style top with fluted edges and a hinged tilt-back feature for ready access to the interior. It is designed to sell for approximately 50 per cent less than Arkla's most popular 1958 model. The Sentry is shipped from the factory with pressure regulator and other necessary equipment.

**SURE,
SHE'S MAD...
BUT GUESS
WHO'LL BE
MADDER!**



**YOU...IF "LEAKING TANKS" CAUSED BY INCOMPLETELY VENTED
WATER HEATERS ARE FORCING YOU TO MAKE COSTLY CALL-BACKS!**

An all-Metalbestos gas vent is your low-cost insurance against this extra expense...because the water that collects under many water heaters vented by single-wall connectors isn't really a leak at all! It's simply part of the 2½ pints of water that an average gas water heater releases every hour in the form of water vapor.

The only power available to expel this water vapor is the heat in the vent gases themselves...but modern, efficient water heaters transfer most of that heat to the water tank. The small amount of heat that's left must be conserved by a double-wall insulated Metalbestos gas vent, or else the water vapor will condense to water and drain back to rust the appliance or spill out onto the floor. That's when your customer calls you back to repair the damage...at your expense!



The Metalbestos "Safety Seal" is Your Protection From "False Leaks"...because only an all-Metalbestos gas vent, installed correctly and permanently with the Metalbestos "Safety System" Gas Vent Tables, rates this Seal. For your free copy of the "Safety System" Tables, write to Dept. M-S.

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**FOR THE BEST
in quality and
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specify famous
GEM**

TRADEMARK PRODUCTS
INDUSTRY TESTED AND AP-
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YOUR FIRST CHOICE FOR
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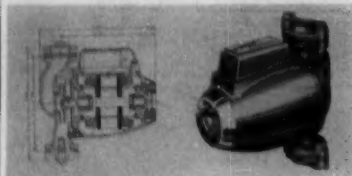


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- Custom-Fit Appliance
Parts & Covers

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For further information use Readers' Service Cards on pages 99, 100



**Circulating pump requires
no lubrication**

Circle 14 on Readers' Service Card
Taco Heaters has introduced its "Perfecta" circulating pump. It features: no seals or packing, no drive coupling, no lubrication, no starting switch, no overload protector, low-cost operation, compact design, and one-piece cast impeller (closed type). Since it is lubricated by the system water, no oiling or greasing is required. It is available with interchangeable $\frac{3}{4}$, 1, $1\frac{1}{4}$, or $1\frac{1}{2}$ in. flanges.

bituminous compounds. Trailer type kettles on pneumatic tires are available in 60, 90, 120, 180, 240 and 360 gal. melting capacities. Skid type kettles with convenient sliding carrying handles for easy loading on truck or moving, are made in 60, 90 and 120 gal. capacities.



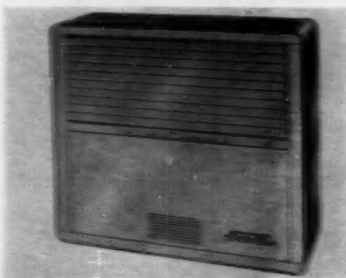
**Welbilt's Gold Star range
has 19 in. wide oven**

Circle 17 on Readers' Service Card
Welbilt's Gold Star range encompasses all the high points of the AGA specifications. Its 19 in. wide oven is 19 in. deep and 12 in. high and has a roasting, baking and cooking capacity of approximately 5000 cu in. Other features include a flush-front modern design with two glass door windows combined with a gold and stainless steel backguard; a combination radiant rotisserie and hi-broiler; and a "Oven-trol" matchless oven.



**Dryer's stainless steel drum
guaranteed for lifetime**

Circle 13 on Readers' Service Card
Speed Queen's Model 133 gas dryer features a stainless steel drum that carries a lifetime guarantee. Automatic ignition and heat selection for all types of fabric are offered. Easy accessibility to the main gas controls is made possible through a gas accessory door on the top panel of the dryer.



**On-the-wall gas heater
approved by AGA**

Circle 18 on Readers' Service Card
Ohio Foundry announces a new patented "Brilliant Fire" gas heater that is AGA-approved for installation on-the-wall. It is 9 $\frac{1}{2}$ in. deep with 25,000 Btu per hour input. An auxiliary blower may be installed any time.



**New melting kettle
available in six sizes**

Circle 16 on Readers' Service Card
Hauk Manufacturing Co. announces its "E-Z-Loader" kettle, for melting tar, asphalt, pitch and

WANT MORE PROFITS PER MILE?

Sure you do. Then... get more gallons per delivery mile. This Delta 3000 T1 is fabricated with a big difference... a profit margin in a precision produced product!



Ask the Delta Man . . .
Get the answer. Get more
gallons to each delivery
mile...the profit is yours!

DELTA

DELTA TANK MANUFACTURING CO., INC.
BATON ROUGE, LA. MACON, GA.
BEARDSTOWN, ILL.



New design features built into H. C. Little's boiler line

Circle 19 on Readers' Service Card

H. C. Little Burner Co. offers a complete new line of gas-fired boilers. A draft hood with a vertical to horizontal design reduces overall height of the boiler and permits basement installation with 6 ft ceiling. An aluminized steel flue-collector resists corrosion from all gases.



Gas-fired forge provides high, fast heat for forging

Circle 20 on Readers' Service Card

Johnson Gas Appliance Co.'s gas-fired forge furnace provides the high, fast heat needed for sharpening and forging parts and tools. Body is of heavy steel construction. Firebox is heavily insulated. It is equipped with four burners with separate shut-off valves on end burners. Overall height is 30 in., width (not including rack) 19 in. and length 40 in. Btu input per hour: 370,000 maximum.

Non-linting pilot burner for gas heating installations

Circle 21 on Readers' Service Card

A non-linting pilot burner for gas heating installations is announced by White-Rodgers. The "Lint Sentinel" does away with lint blocking at the primary air opening, the main source of pilot failure. It operates without primary air. The air slots usually located

GET MORE GALLONS PER MILE!

You make more
profit per mile.



Ask the Delta Man . . . Get
the answer. Get more gallons
to each delivery mile . . .
the profit is yours!

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FOR THE BEST
in quality and
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YOUR FIRST CHOICE FOR
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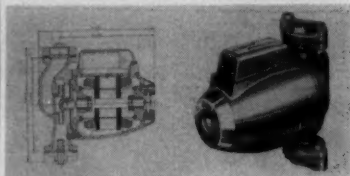
THE E. F. GRIFFITHS CO.

240 E. Walnut Lane

Phila. 44, Pa.

Leading the Gas Industry for Over 40 Years

For further information use Readers' Service Cards on pages 99, 100



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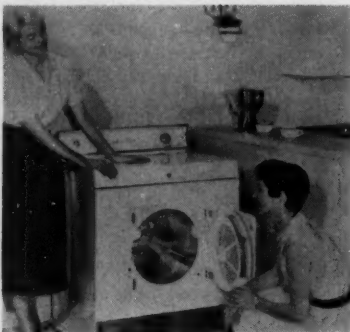
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Dryer's stainless steel drum guaranteed for lifetime

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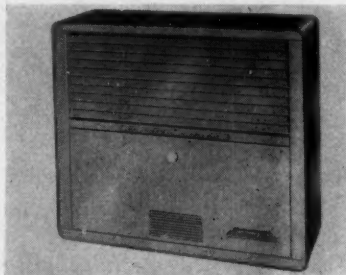
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WANT MORE PROFITS PER MILE?

Sure you do. Then... get more gallons per delivery mile. This Delta 3000 T1 is fabricated with a big difference... a profit margin in a precision produced product!



Ask the Delta Man . . .
Get the answer. Get more
gallons to each delivery
mile...the profit is yours!

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BEARDSTOWN, ILL.

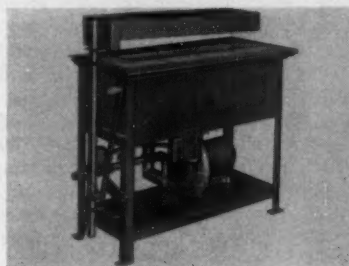
MACON, GA.



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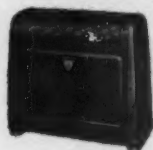
**YOU CAN
COUNT ON
Comforteer
GAS HEATERS
FOR**



**FAST TURNOVER
and
FULL LINE PROFITS!**

It's true . . . Comforteer Gas Heaters offer you the most style conscious heating appliances combined with superior performance. Customer appeal assures fast turnover and our varied line is priced for your profit.

VENTED CIRCULATORS



Model 340



Model 316

Comforteer manufacturers 5 different models vented circulators 12,000-40,000 BTU Input. All models finished in Warm-Tone Beige.

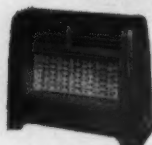
UNVENTED CIRCULATORS



Model 118



Model 135



Model 235

There are 10 basic models of Comforteer Unvented Gas Heaters. 12,000 to 50,000 BTU Input models.

. . . for fast turnover, full profit . . .
See Comforteer representatives at the LPG Convention Conrad Hilton Hotel, May 3 to 6.

Manufactured By
VEGA INDUSTRIES, INC.
West Sixth Street
CHATTANOOGA, TENNESSEE

For further information use Readers' Service Cards on pages 99, 100

around the orifice base have been eliminated, closing the main point of lint entry. Three models are available, for right-hand flame, for left and for dual ignition.



**Initials personalize owner's
Caloric gas range**

Circle 22 on Readers' Service Card

Over 150 different models of Caloric gas ranges have been given the Gold Star Award. The group includes built-ins, Ultramatic and Deluxe models in 20, 24, 30, 36, and 40 in. sizes. In addition to the cooking conveniences required for Gold Star Award, Caloric has giant 1200 Btu top burners, guaranteed for life. Also, "keep warm" and "simmer" settings. Individual monograms, personalizing each range with the owner's gold-colored initials, are another unusual feature of the models.



**Trencher features positive
acting spring-loaded clutch**

Circle 23 on Readers' Service Card

Charles Machine Works' Model C-3 "Ditch Witch" trencher features a positive-acting spring-loaded clutch, and a ball-bearing screw jack for raising and lowering the digging boom. A spring-loaded sprocket on the digging boom main-

tains correct digging chain tension and allows foreign material to pass through the digging chain without stalling the machine. Standard equipment includes a 2 ft depth digging chain with a selection of teeth for digging 3, 4, and 6 in. wide.



**Automatic clothes dryer
operates at low temperature**

Circle 24 on Readers' Service Card

An automatic clothes dryer for self-service laundries operates at low temperature with a 120 deg. air flow. This Norge coin-operated machine dries all types of fabrics. It has a safety thermostat, metal clothes door gasket guard, safety knee door opener, and automatic door switch. It is installed easily with simple venting.



**Gas lamp can be turned on, off
from inside an establishment**

Circle 25 on Readers' Service Card

Trageser Copper introduces its "Vari-Ray" gas lamp. Designed for use especially in colder climates, it contains a mechanism which permits the owner to turn it on and off from inside the house. The light intensity can be dial-controlled to give variable brightness. Available for any gas, the lamp is supplied

complete with lamp head, pressure regulator, post and remote operating control assembly.

Desk-model bookkeeping machine handles variety of tasks

Circle 26 on Readers' Service Card

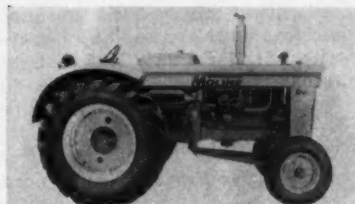
A desk-model bookkeeping machine designed to handle a variety of bookkeeping tasks has been placed on the market by Burroughs Corp. The machine, a style P612, includes several automatic features formerly available only in larger, more expensive models. Its flexibility will permit small businesses to switch to mechanized accounting without revising their bookkeeping systems.



Lynn introduces L. P. housing made of galvanized steel

Circle 27 on Readers' Service Card

The Lynn L. P. housing has just been introduced. Made of galvanized steel throughout, finished in silver aluminum enamel and rust-proof. It features a heavy gauge corrugated steel base which permits a 20 per cent savings in shipping costs because it weighs less than conventional housings.



G-VI tractor turns in short radius—16 ft 4 in.

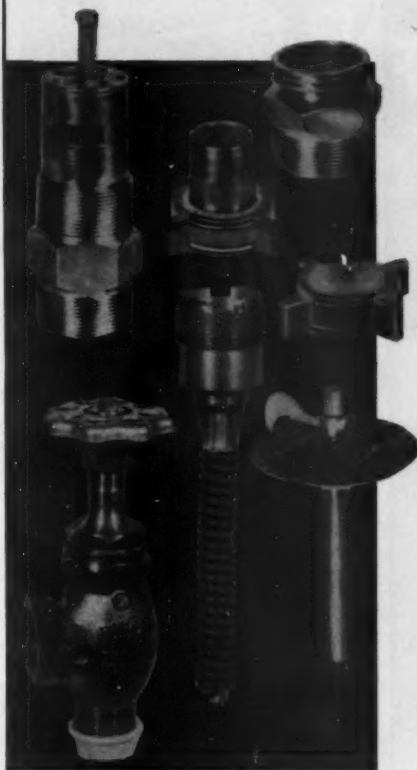
Circle 28 on Readers' Service Card

Minneapolis-Moline's G-VI tractor weighs approximately 7600 lb., with a wheel base of 96 in. It turns in the short radius of 16 ft 4 in.,



TRANSPORT WITH **RONEY** FITTINGS

IN YOUR SERVICE



Excess flow valve—high flow, low pressure drop. #3001 series.

Large acme thread adaptors and couplings for safety.

All new relief valves—completely recessed for safety. Specially designed for transports and bobtails. 2" and 3" sizes.

Rotary gauge, #331 series. Special rugged design for mobile equipment.

Special space-saving angle valve incorporating excess flow valve. #830.

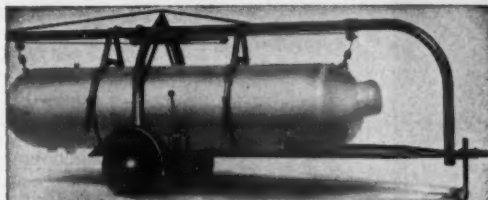
FITTINGS EXPRESSLY DESIGNED FOR MOBILE EQUIPMENT.

RONEY

INC.,

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LOOK TO RONEY FOR LPG AND NH3 EQUIPMENT



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**It's FOR YOU
FISK
TANK TRAILER
HYDRAULIC**

YES—ONE MAN—CAN FRISK your tanks with a FISK trailer. Simple to operate and maintain. The hydraulic system does all the work. Save muscles—time and money. Fisk will transport tanks up to 1260 w.g.

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See the Fisk Trailer in the Fine Products Co. booth #13 at LPG Show, Chicago, May 3-6

Fine Products Company
6240 Ogden Avenue
Berwyn (Chicago), Ill.

FISK TRAILER SALES CO.
P. O. Box #3093
Madison, Wisconsin

Fisk Trailer Sales
(Factory)
Rt. 5, Box #98
Oshkosh, Wisc.

"THE HEART OF THE HOME" WALDORF

GLASS LINED
L-P GAS
WATER
HEATER

PLUS

THE
NEW
WALDORF
L-P GAS
CLOTHES
DRYER

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displayed at
LPGA
convention

Booth No. 194

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WALDORF HEATER COMPANY,
1421 Chestnut Street, Philadelphia 2, Pa.
Tell me more about your
WATER HEATERS AND DRYERS.

NAME _____
STREET _____
CITY _____
STATE _____

For further information use Readers' Service Cards on pages 99, 100

and has been engineered for the best weight distribution and traction. The six cylinder engine develops 81 belt hp and 72 drawbar hp on L. P. gas.



Five vented heaters guaranteed for life

Circle 29 on Readers' Service Card

Five sizes of vented radiant circulators are included in Locke Stove Co.'s "1500-Series" of Moore's gas heaters. They are constructed principally of cast-iron and are guaranteed against burn-out for life. "Top-O-Matic" controls permit the owner to make temperature or blower adjustments without bending or stooping.

TRADE LITERATURE

"The L. P. Gas Dealer's Guide to Better Painting"

Circle 30 on Readers' Service Card

A four-page folder, "The L. P. Gas Dealer's Guide to Better Painting," is available from Spatz Paint Industries, Inc. This guide lists four different systems for priming and spot-priming. Special paints for cylinder and bulk storage tanks are described. A paint additive (rust stopper) is also available.

Bulletin describes NCG electronic line tracer

Circle 31 on Readers' Service Card

A bulletin describing the NCG electronic line tracer attachment for flame cutting machines has been published by the National Cylinder Gas division of Chemetron. It lists advantages of the new control system for the firm's Type R cutting machines in which optical sensing techniques are used to guide metal cutting torches by scanning or reading pen or pencil line drawings.

Free employee training book offered by Cities Service

Circle 32 on Readers' Service Card

"Building Your Manpower Team," a 26-page booklet, written to help distributors and dealers of petroleum products build and train stronger employee organizations, is offered by Cities Service. Seven chapters help improve the effectiveness of each member of the staff. The booklet shows how to choose, train, and supervise men.

Kerotest's complete valve line described in catalog

Circle 33 on Readers' Service Card

Kerotest Manufacturing Co. has released catalog KSI-M covering its complete line of series valves. The 20-page booklet contains parts ordering information, trim material, recommended services, and a handy Figure Number Index designed for rapid reference.

Dixie's entire range line pictured in literature

Circle 34 on Readers' Service Card

A 1959 gas range catalog, plus foldaway and built-in range folders are all available from Dixie. In full color, the literature gives specifications and pictures of the entire line.

Brochure pictures and describes portable fire extinguishers

Circle 35 on Readers' Service Card

American LaFrance has just released a brochure picturing and describing its line of portable fire extinguishers and accessories for office and plant use. Emphasizing the need for the right extinguisher in the right place at the right time so a fire can be snuffed out in the first critical minutes, the brochure describes units approved by Underwriter's and Factory Mutual Laboratories.

Multiport gas-air burners data

Circle 36 on Readers' Service Card

Selas' new bulletin, Multiport P-R gas-air burners, describes how the burners—which provide users a reducing neutral or oxidizing flame with any commercial fuel gas—break up the flame front into a large number of small flames, resulting in a concentrated "flat face" round flame of high intensity.

**LPG dealer
& gas utility
help each other**

A graphic example of how LPG dealer and gas utility company can and do work together recently came to BPN's attention.

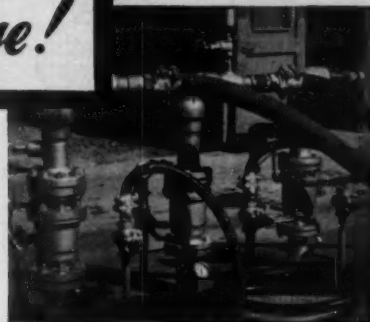
Central Indiana Gas Co., Muncie, is developing underground storage in an old, depleted natural gas field. One small well still produces small quantities of gas and has been serving, in limited fashion, the nearby rural community of Unionport (11 customers). During a well renovation project last fall, Unionport was converted to LPG by connecting a 1000-gal. tank to the existing distribution lines. Even after the renovation, however, tests showed that the well could not supply service equal to that received by the utility's urban customers.

December 9th was an unusually cold day with a low of eight degrees below zero and a high of three above. By 9:30 a.m., the back pressure had dropped to virtually zero, so the gas company called LPG dealer Jim Gill of Gill Brothers Gas Co., in nearby Albany. By 4:30 p.m., a 1000-gal tank was installed and six hours later the last of the scattered customers was converted to propane. The next day, Gill Brothers added a 500 gal. tank to the system. Unionport's 11 customers remained on LPG for the rest of the winter, and were gradually converted back to natural gas from the well as spring approached.

"It is reassuring to us and our customers to know that we can depend on the fast aid and co-operation of the LPG industry in such an emergency," said W. George Knollenberg, engineer at Central Gas Co. "We shall probably be calling on them many times in the future, during the course of developing our storage field, to supply gas to isolated customers who must be temporarily cut off from natural gas supplies, due to field work, testing, etc."

To Gill Brothers, such cooperation has meant up to 300 gal. of additional load per day over extended periods, not to mention the resulting unmeasurable and unpurchasable good will, both on the part of the public and the utility.

***Strongest, Safest
Connections...for
All L-P Hose!***



**"G J-BOSS" STYLE X-34
GROUND JOINT FEMALE COUPLINGS**

Unequalled in strength, durability and safety! That's why more and more "GJ-Boss" Couplings are being used on hose handling L-P Gas . . . at bulk plants . . . on carloading rigs . . . and other installations. All parts are steel or malleable iron, thoroughly rust-proofed. Furnished with super-strong "Boss" Offset and Interlocking Clamps. Ground-joint union between stem and spud forms leakproof, trouble-free seal. Sizes 1/4" to 6", inclusive. Also available in washer type, and with companion "Boss" Male Couplings. Stocked by Manufacturers and Distributors of Industrial Rubber Products.

DIXON *Valve & Coupling Co.*

GENERAL OFFICES & FACTORY: PHILADELPHIA 22, PA. BRANCHES—CHICAGO
BIRMINGHAM • LOS ANGELES • HOUSTON • DIXON VALVE & COUPLING CO., LTD., TORONTO
ASSOCIATE COMPANIES: SUCK IRON COMPANY, QUARRYVILLE, PA. • PRECISION DRAWN STEEL COMPANY, CAMDEN, N.J.

GENERAL L-P GAS TANKS

20 lb.—40 lb.—60 lb.—100 lb. Cylinders

Complete Line of Accessories for Single or Double Hook-ups . . . Regulators—Valves—Racks—etc. Everything that is needed for complete Bottle Gas Installation.

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let Flo Curves and her
Little
Puzzlers
make your men more productive



Flo rewards your men for learning with...

an all-expenses-paid **VACATION TRIP FOR TWO** via TWA SKYLINER. The grand-prize winner can choose 8 fun-filled days in California or 10 days in Nassau and Miami. 50 other wonderful prizes for the runners-up in Flo Curves' Little Puzzlers training contest.

Mail the coupon now, and your men will receive Flo Curves and Her Little Puzzlers in the mail once a month.

There's no charge, of course. This is another feature in Selwyn-Pacific's continuing program of service to the LP dealer.

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Please send me your FREE "Flo Curves and Her Little Puzzlers" training course for my men at no obligation whatsoever.

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Please send _____ copies each month.
(1 for each man)

YOUR NAME

POSITION

selpac



ASSOCIATIONS

Texans hear profit talk, adopt insurance plan

An accountant's view of the LPG business and a hospitalization insurance plan specially tailored to the Texas LPG industry were among the highlights of the Mid-Winter Conference of the Texas Butane Dealers Association. Over 200 dealers attended the two-day session in Houston in mid-January.

"You can make a profit—why don't you?" challenged Charles W. Guy, an accountant who is also executive vice president of General Gas Corp., Baton Rouge, La.

Guy answered his own question with three important "don't's":

1. Don't make the serious mistake of setting prices in terms of percentage of gross profit instead of cents per gallon. "Fifty per cent gross profit may be enough when gas costs a dealer 7 cents per gal., but would it be enough if the cost dropped to 4 cents?"

2. Don't think in terms of profits before taxes. "The 25 per cent Federal Income Tax is just as much an item of expense as a driver's salary."

3. Don't feel sorry for your customers and doubt their ability to afford gas. "The average customer in Dallas (might have) a total annual fuel bill of \$120 for cooking, water heating, and house heating—mighty low when you consider that in the Midwest, it costs from \$200 to \$400 per year just to heat the average house with other fuels. I know a man who invested his life savings in a business, cut prices, went broke in less than a year—nobody in town offered him money to re-establish his business, but they had been glad to help him go broke."

TBDA President Guy Highnote announced the availability of the special insurance plan for all association members and their employees. Among its advantages are that it provides members with less than 25 employees valuable group insurance protection they would not otherwise be able to get; but it also is attractive to larger dealers because mass purchasing power brings low cost. The Association had previously hired an insurance

consultant who prepared a set of specifications which he submitted to 21 insurance companies. The program selected was submitted by New York Life Insurance Co.

Climax of the meeting was the selection of Ray J. Noblitt of Noblitt Sales Co., Clarendon, for TBDA's highest honor, "Butane Dealer of the Year."

Ideas to be swapped at convention panel sessions

Idea-swapping sessions designed for those who run the industry's marketing operations are one of the new features of the 1959 LPGA convention and trade show scheduled for May 3-6 at Chicago's Conrad Hilton hotel.

Ideas will be swapped at six panel sessions covering these topics: general management, operations, accounting, load balancing, advertising and radio communications.

Panel leaders picked by convention chairman Martin A. Steinlicht, Home Gas & Machinery Co., Mobridge, S. D., are: Eugene W. Schrage, Thermogas Co. (Allison, Iowa) load balancing; James B. Shatto, Dri-Gas Co. (Miami, Fla.) accounting; R. H. Wherry, Southern Propane Properties Inc. (Jessup, Ga.) operations; D. G. O'Meara, Pyrofax Gas Corp. (New York City) advertising; W. A. Schuette, Hausgas Inc. (Washington, Mo.) general management; and Conrad Clark, Evergreen Supply Co. (Evergreen, Colo.) radio communications.

All panels will be organized as informal give-and-take sessions with no prepared speeches and the floor open to all guests.

At these specialized panels and at the Marketers' Section meeting on Wednesday afternoon (May 6), the entire emphasis will be on distributors' problems.

The four-day gathering will include sessions for producers, appliance manufacturers, equipment suppliers, tank fabricators and international operators.

A highlight will be the president's address on LPGA accomplishments and programs, to be delivered by Arthur E. Bone, Eastern Propane Co., Malvern, Pa. Bone

will speak at the Monday luncheon, the opening general session. On Wednesday's lunch program, the association president for 1959-60 will be installed.

The convention finale is a banquet and floor show Wednesday evening.

"Need for gas unity in Chicago area more evident"

The Gas Institute of Greater Chicagoland held its annual organization meeting February 26 in Dundee, Ill.

President-elect Len Nyberg of Western Propane, Batavia, said "the need for a gas unity program in the Chicago area is becoming more evident. Although a feeling of complacency about gas fuel competitors has been existent, that complacency will probably be short lived. New energy, full cooperation from all interested parties, and continued support from present members should be all that is necessary to create a strong unity program beneficial to gas utilities, L. P. gas dealers, appliance manufacturers, and gas producers."

Other officers elected include: Harris A. Goodwin, Bastian-Blessing Co., 1st vice president; Everett Wenzel, Cribben & Sexton Co., 2nd vice president; Arthur W. Nepstad, Industrial Specialties Co., 3rd vice president and Jerome T. Happ, North Shore Gas Co., secretary-treasurer.

Carburetion conference in Kansas in mid-May

The Annual Central States Conference on "LPG Carburetion and New Applications" is scheduled for May 17-20 at Kansas State College, Manhattan. Features include: practical demonstrations of six major makes of carburetors, an expanded trade show displaying new equipment, and talks by nationally-known speakers.

LPGA produces the conference in cooperation with the school. Registration fee is \$15, including all instruction, material, and luncheons.

Alabama LPGA adds to code, cities services

Meeting in Montgomery in mid-January, the Alabama LPGA board of directors recommended an addition to the state code, spelled out

its reasons for existence, and laid plans for its late summer convention.

Upon the recommendation of its safety committee, the board approved pamphlet No. 52 (interim LPG piping and appliance installations) and asked the Alabama L.P. Gas Commission to adopt it as part of the state code.

The membership committee asked dealers to study an official list of association purposes and services and make suggestions for improvement. Among the services cited are: statewide 4-H Club Safety essay

project, school range program for high schools, industry film on the uses of LPG, educational material furnished to interested groups, consumer safety booklets, employee service school, sales schools, carburetion schools, legislative service for dealers, representation for dealers in freight rate matters, dealer meeting encouraged on county and district levels, monthly marketing reports, close watch on adverse publicity, and press releases on state activities.

The convention will be August 2-4 in Birmingham.



Seasonal Business Like Mine Needs

Superflame

SUPPORT!

As a booster for his regular delivery business "Al Lert" has the right idea. The extra profits he makes on sales of Superflame units supplements the drop in off-season sales.



LIKE THIS SUPERFLAME INCINERATOR

SMOKELESS—ODORLESS

Housewives like the convenience of an incinerator that eliminates their garbage problems—especially in rural areas where there are no rubbish pickups. Check the extra features and you'll agree that "Superflame Superiority Sells".



- SPECIAL DRAFT REGULATOR
- LARGE CAPACITY
- FIBERGLASS INSULATION
- HEAT RESISTANT FINISH
- HEAVY 16 GAUGE COMB. CHAMBER
- STAINLESS STEEL BURNER
- PRES-TOE PEDAL OPENS TOP

or the
Superflame

"FUEL SAVER"

HOME HEATERS!

The most acceptable line of gas heaters made! In performance, design and appearance, Superflame offers more for the customer's money—and again proves that "Superflame Superiority Sells".



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KING-SEELEY CORPORATION
Albert Lea, Minnesota

Please send me the kit "SUPERFLAME SUPERIORITY SELLS"

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QUEEN PRODUCTS DIVISION
KING-SEELEY CORP., Albert Lea, Minn.

Booth 16 & 17—LP Gas Show—May 3-4—Conrad Hilton—Chicago

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SPATZ
Aluminum
PAINT
that cuts
maintenance
costs of
Bulk Storage
Tanks...
AMAZING
"RUST STOPPING"
"STRONTIUM
CHROMATE"**



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- Sold throughout the Nation at Factory Wholesale Prices.
- Write us for the Name of the Spatz Representative that serves you.

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A guide to better painting especially for the "LP" Gas Industry. Write for yours today.

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THE TRADE

WILLIAM C. YOCUM is now vice president in charge of engineering, it was announced by the Superior Valve & Fittings Co. Previously chief engineer, he is responsible for all phases of the company's engineering developments.



W. C. Yocum
Superior Valve



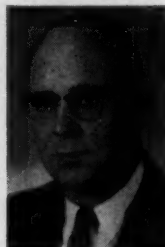
Norman Robertson
American-Standard

NORMAN ROBERTSON was appointed to the newly created position of market research manager for American-Standard Air Conditioning division. The Market Research department will develop marketing data for individual areas to assist distributors in achieving their maximum potential. Robertson will develop sales forecasts, conduct research pertaining to specific marketing areas, and direct long-range studies of market potentials. With the division one year, he was a research analyst in the marketing department.

JOHN U. SIMMONS was appointed sales engineer for the state of Texas by Robertshaw-Fulton Controls Co. He represents the firm's Fulton Sylphon and Bridgeport Thermostat divisions. Simmons joined the firm in 1957 and was a development engineer at its Knoxville, Tenn., plant prior to his new appointment. At the same time it was announced that GEORGE H. CROCK has been named works manager of the company's new Indiana division. In 1954, he became works manager of the Thermostat division, which he first joined in 1936.

GEORGE W. MANUEL was named New York district manager for Norge home appliances. He will work closely with Norge distributors serving dealers in southern New York, Long Island, and northern New Jersey.

LEO GADDIS has joined the sales staff of the Gas Equipment Co. of Denver, distributor of L. P. gas equipment and supplies in the Mountain States. He formerly was departmental manager for the Colorado Natural Gas Co.



Leo Gaddis
Gas Equipment



R. N. Weber
White-Rodgers

ROBERT N. WEBER, formerly manager of the St. Louis sales region for White-Rodgers Co., was recently appointed manager of the new Product Planning division. The new group will guide management in future product development and growth, basing recommendations on samplings of customer comments and desires, as well as industry needs.

JOHN T. NESSER was appointed manager of sales for the Best Manufacturing Co., Inc., Baton Rouge, La. The company is a manufacturer of steel products.

WILLIAM L. WOOD has been elevated to the position of sales promotion manager of Motor Wheel Corp.'s consumer products. He is responsible for advertising and sales promotion activities on Reo power mowers and Duo-Therm home and mobile home equipment. He succeeds THEODORE D. O'HEARN who resigned to join a Detroit advertising agency.

EDWARD J. DOYLE JR. is the new general manager of Ardmore Products. He joins the firm after many years with the Commonwealth Edison Co., Chicago, having served as supervisor of industrial sales, division service manager, and division commercial manager.

Four supervisory changes have been made in the sales department of Tuloma Gas Products Co. The

changes were brought about by a recent expansion in its marketing program. H. D. GROTHUSEN was named sales supervisor of special products; W. R. LAVERY, refinery and industrial sales supervisor; W. E. SCOTT, development supervisor; and A. L. BECK, supervisor of district sales offices.

PAUL K. RIEDMAN has been appointed a regional manager for Chambers Built-Ins Inc. His territory includes Alabama, Tennessee, Georgia, and the Carolinas. He will formulate distribution and conduct sales and training schools for the completely new line of matched and packaged built-in kitchen appliances.

Cities Service Oil Co. (Del.) is realigning its marketing territory into eight regions with managers at each of the regional headquarters. Regional sales offices and their managers are: Cleveland, C. W. STARK; South Bend, Ind., G. E. KOHLER; Chicago, J. M. ROSS; Milwaukee, P. R. SHAY; St. Louis, G. A. WARD; St. Paul, with P. L. MILLER; Des Moines, V. W. JOHNSON; and Kansas City, R. R. CHASTAIN.

FRED MAYTAG II, president of the Maytag Co., has been elected a director of Minneapolis-Honeywell Regulator Co. The third generation head of the home laundry appliance manufacturing company, he has been its president since 1940.

DAN G. FANELLI is now built-in range sales manager for Norge division of Borg-Warner Corp. In the appliance field for 12 years, he was sales manager in charge of built-in range sales for Admiral Corp. ROBERT L. BROOKMAN is now sales manager of clothes dryers and combination washer-dryers. Associated with Norge since 1957, he moves from the position of mid-western manager of the utility division.

J. B. Beaird Co., Inc., announces six new appointments. RICHARD C. YOUNT, assistant to the controller of Westinghouse Air Brake Co. in Pittsburgh, Pa., and SIDNEY W. WOODALL, midwest division purchasing agent, have been named comptroller and purchasing agent, respectively. Both will be members of the Beaird executive group, which directs management policies. DAWSON LARY, with the company since 1952, was promoted from sales

engineer to district manager of the New Orleans office, where he was joined by N. J. CHAMBERLAIN, Beaird general products representative in Houston since 1957. FRED W. BAILEY was named general products representative with headquarters in Shreveport. He was formerly manager of the pump and engineering department of Peerless Pump Co. F. L. MCCOY, veteran L. P. gas salesman with Skelly Oil Co., was named sales representative in Kansas and portions of Colorado, Wyoming, and Nebraska.

Two new merchandising divisions have been created by the RCA Whirlpool Appliance Sales department of Whirlpool Corp. Ranges, formerly a product section of the refrigeration division, will have divisional status under the supervision of ROBERT L. BRINTNALL, most recently product manager for the kitchen division. As range division general manager he will be responsible for product development and sales planning. A contracts division, encompassing sales to builders, trailer makers and the government has been formed under

NEW.....and even Finer
THE IMPROVED
"MASTER" VISIBLE
FLOAT GAUGE
for LPG and NH₃

Bulk Storage!

your Biggest Dollar Value... because it's TAYLOR-made...

- Completely Corrosion-Resistant
- Balanced Twin Counter Weights
- Extra Large Stainless Float
- Moisture-Proof Dial Assembly
- Easy-To-Mount Die-cast Head
- Sturdy Die-cast Gear Fork
- Hi-tensile Aluminum TUBING Float Rod
- MANY MORE NEW AND FINER FEATURES


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 LOS ANGELES

ODELL GLASS CO
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**LP-GAS
VAPORIZERS**

Specified by
Consulting Engineers
throughout industry.
Units are applicable
to ammonia
vaporization as well.

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Sprague

**LP
GAS METERS**

For
**ACCURACY
DEPENDABILITY
EASY MAINTENANCE**

THE SPRAGUE METER CO.

35 SOUTH AVE. • BRIDGEPORT 1, CONN.

the direction of **ROBERT J. GRIDDLE, JR.** As general manager he will exercise responsibilities similar to those he performed as builder and contract sales manager for the kitchen division.

FRITZ O. BEFELD has been appointed sales representative in the southeast United States for **W-K-M**, division of **ACF Industries Inc.** With **W-K-M** since 1937, he will now be located in Atlanta, Ga., and will represent the firm in Georgia, Florida, Alabama, Tennessee, North Carolina, and South Carolina.



F. O. Befeld
W-K-M



Ludwig Otonicar
H. C. Little

LUDWIG OTONICAR is appointed factory representative for **H. C. Little Burner Co. Inc.** He will headquarter in Cleveland and cover Ohio, West Virginia, and Michigan. His most recent business connection was Ohio factory representative for **Bowser Inc.**

Ansul Chemical Co. has announced three promotions in its sales organization. **JAY H. JARRET**, former refrigeration sales manager in Ansul's midcontinent region, was named assistant to Sales Vice President **L. C. McKesson**. **RICHARD W. DREBUS** is now director of marketing and administrative services in the sales division. **EDWARD A. BEACHAM** was selected manager of refrigeration sales and development.

RAMON RODRIGUEZ JR. has been named manager of sales activities in Mexico, the Caribbean, Central America and South America for the **Weatherhead Co.** Weatherhead products are presently marketed throughout a network of local distributors in these areas and no changes are contemplated in this arrangement. Rodriguez joined the export division of Weatherhead in 1958.

JUEL M. RANUM has advanced to a new position as the assistant to the chairman of the board of **Whirlpool Corp.** Ranum will retain

his former responsibility as director of public relations but leaves his position of assistant to the president. He joined **Whirlpool** in 1950. **JOHN LIVINGSTON** became assistant to the president, moving to that post from general manager-ship of the laundry and vacuum cleaner products, Sales to Sears division. He came to Whirlpool in 1956 as director of special products in its Hamilton, Ohio, plant. **RALPH C. ASHLEY** was named general manager, laundry products, Sales to Sears division. He was formerly director of manufacturing at the company's St. Joseph, Mich., plant.

EDWARD R. GILMORE is now employed as a consultant by **Reynolds Gas Regulator Co. of Anderson, Ind.**, a wholly-owned subsidiary of **Arkansas Louisiana Gas Co.** He has been associated with the oil and gas industry for the past 38 years, primarily in design and research on gas measurement and control equipment.

RUSS D. RELYEA is now a sales engineer for **Scaife Co.** He is responsible for the sales of domestic system tanks and ICC cylinders in Michigan, Indiana, Kentucky, Tennessee and western Ohio. He was previously associated with the **Gas Equipment Co.** (Bastian-Blessing Co. representatives in the south west), and prior to that was assistant sales manager of **McNamar Boiler & Tank Co.**



R. D. Relyea
Scaife Co.



M. L. Unversaw
American Metal

MYRON L. UNVERSAW is the new eastern sales manager for the **Amerivent** division of **American Metal Products Co.** He will headquarter in Indianapolis.

ROBERT F. DAVIS was recently named manager, two-way radio sales, of a 13-state Midwest area for **Motorola Communications & Electronics Inc.** Taking Davis' former position of regional manager in northern Illinois, northeastern Indiana, eastern Wisconsin, and upper Michigan is **ERIC GOLEAS.**

Davis has been with Motorola for 12 years in sales and sales management positions; Goleas, 10 years, the last three as zone manager in Chicago.

JOHN B. HARBAUGH is Wolverine Tube's (division of Calumet & Hecla Inc.) new technical sales representative in the New York district. He was formerly with M. W. Kellogg Co. as process engineer.

STEPHEN DECOSTE has a new assignment as supervisor of plugs, receptacles and connectors sales at Crouse-Hinds Co.'s headquarters office in Syracuse, N. Y. Former business affiliations include five years as New England sales manager for Electro Arc Manufacturing Co.

GEORGE F. ARNOLD has been named district sales manager for the General Electric Communication Products office in Cleveland. Previously associated with the company's regional office in Columbus, Arnold succeeds M. S. MCILWAIN who has joined General Electric's mobile radio marketing headquarters in Lynchburg, Va. The G-E district office in Cleveland coordinates two-way radio sales to business, municipal and military users.

Deaths

EDWIN C. ADAMS, 72, president of Adams Bros. Manufacturing Co. Inc., died February 15, at his home, after a brief illness. In addition to manufacturing, he was president of Adams Sales Corp., wholesale appliance distributors. He had been prominent in trade association work for many years, was chairman of the Direct Heating Equipment division of GAMA and chairman of the American Gas Association Technical Advisory group on gas direct heating research. He authored numerous technical articles on gas heating and venting.

COL. T. G. TACKETT, age 58, president of National Butane Gas Co. since 1948, died January 31 following a year's illness. He joined National Butane in 1938 as office manager. Col. Tackett was active in L. P. gas organization activities, addressing many groups, among them the Kentucky L. P. Gas Association. For his assistance with safety projects in Kentucky, he was commissioned a Kentucky Colonel.

Elgin's NEW Model 50
Fully Automatic Water Conditioner
A NATURAL FOR YOUR MARKET
For soft, rust-free, filtered water —
Automagically!

A complete city and well water conditioner, Elgin's new Cabinet Model 50 softens water, removes rust and filters for sparkling clarity in one automatic operation.

The Model 50 is easy to install and requires minimum maintenance and salt attention. A "most wanted" appliance, easily sold on its looks and performance in city and rural areas alike, it is a natural tie-in with home improvement plans.

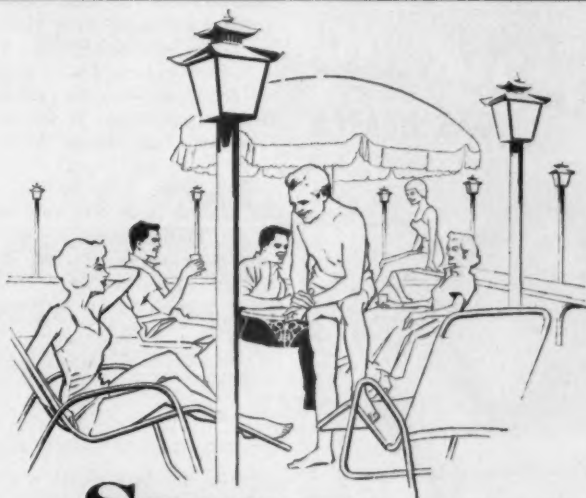
Elgin also produces a sales-mate for the Model 50 — the economical, semi-automatic Model 60 tank-type unit. A 3-year guarantee, plus a 10-year warranty, is furnished on both units. And Elgin provides you — the dealer — with sales stimulating merchandising aids and demonstrators to make your selling job easier and more professional.

Semi-Automatic Model 60

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Washington Report

Federal fair trade law in House subcommittee

Efforts in Congress to substitute a new federal fair trade law for present sagging state resale laws are running into the usual bitter opposition by Government anti-trust agencies, farm and consumer groups, and labor unions.

A House Commerce subcommittee opened public hearings on the fair trade proposal in March. Principal measure under consideration is sponsored by Rep. Oren Harris, (D.), Ark., chairman of the Commerce Committee.

Present laws permit the states to enact their own fair trade laws. In some score of states, these laws have been ruled invalid. The Harris proposal would permit fair trade to operate in any state which does not specifically have laws forbidding it.

Under the proposal, a manufacturer could set resale prices and require that they be observed throughout a state by notifying one distributor in the state.

The Harris bill would give a manufacturer or any other businessman damaged by a violation of the price provision to sue in state or federal courts for damages and for an injunction to prevent further price cutting. It is one of the strongest fair trade bills introduced in recent years.

Fair trade backers argue that the system does not hurt the consumer. They say surveys show that consumers in non-fair trade areas usually pay the same prices as those in areas with fair trade. In addition, they say, it promotes competition by enabling the small firm to compete with bigger rivals.

Co-op advertising may again be tax free

Efforts to override a tax ruling which has caused cutbacks in many co-op advertising programs are gathering steam in Congress.

Rep. Don Magnuson (D.), Wash., has introduced a bill which would write into law the previous position of the Internal Revenue Service that co-op advertising allowances are free of excise taxes.

The IRS threw a monkey wrench into the co-op ad practice last fall by ruling that allowances paid to merchants by manufactur-

ers or wholesalers are subject to the excise tax when achieved by rebates to the purchaser. This includes almost all such allowances.

Tax agents ruled that this method of paying ad allowances made them a part of the original taxable cost of the merchandise. It pointed out that this is consistent with another ruling that a manufacturer cannot deduct from the taxable price of goods his costs for fulfilling a guarantee or service warranty.

These allowances were deductible as "price adjustments" under previous IRS rulings.

Host of small business measures pending

A host of new small business measures is piling up in Congress. Few, if any, will pass this year, but they will be pending next year, when chances will be better.

Among the latest bills to help small firms are seven measures sponsored by Sen. Hubert Humphrey (D.), Minn. Three are technical amendments to the antitrust laws. The others would:

Establish a graduated income tax to give substantial tax cuts to small corporations by cutting the tax rate on profits under \$100,000 a year.

Strengthen the prohibition against sales of goods at "unreasonably low prices" where the effect is to destroy competition.

Provide disaster loans to small firms forced to relocate because of federal highway construction.

Prohibit loss-leader selling.

Independent REA plan gets committee okay

Backers of the REA program are making headway with legislation to strip the Agriculture Department of control over the REA by again making it an independent government agency. They are also showing strength in a bid to broaden the power of REA power co-ops to "raid" areas served by private electric utilities.

The bid to return REA to the independent status it had before 1939 was touched off by a decision by Agriculture Secretary Benson to personally approve larger REA loans to co-ops. Power co-ops say Benson's move is part of a "master

plan" of the Eisenhower Administration to destroy the REA program as it is now set up.

The House Government Operations Committee has approved the proposal.

A congressional resolution to reinforce the right of REA power co-ops to expand into areas served by private utilities was triggered by the government's fiscal watchdog, the General Accounting Office (GAO). About a year ago, it ruled that the basic REA law did not permit a power co-op to serve persons in rural areas already receiving central station power service.

The issue arose over a \$120,000 REA loan to a co-op to serve a new building at an Iowa industrial firm. The firm's other buildings received private power, but the co-op offered cheaper rates to hook onto the new building. The GAO ruled that the plant was already receiving power, and because the private utility has offered to extend its lines, the REA loan was illegal.

Co-op backers argued that the co-ops serve persons and not areas, and therefore it was legal. The loan subsequently was permitted to be repaid at a normal rate. The co-op later took over the entire plant, as well as the town in which it was located, because of its cheaper rates. REA backers contend that the GAO ruling means a private power firm can exclude REA co-ops from an entire area simply by running a line through it.

Opponents claim it will make 2 per cent federal money (the legal interest rate on REA loans) available to power co-ops to help them raid customers of private tax-paying electric utilities.

Tax-free days may be over for co-ops

While many of the President's recommendations for correcting tax inequities and removing hidden or indirect subsidies will undoubtedly fail this year, his proposals to require normal taxes on profits of farm co-ops may be the exception.

Two moves to remove a 1951 court-created loophole giving co-ops virtually tax-free status are now pending in the House. Both follow generally the lines laid down by Treasury Secretary Robert B. Anderson.

One measure, introduced by Rep. Clifford Davis (D), Tenn., would, for tax purposes, consider all re-

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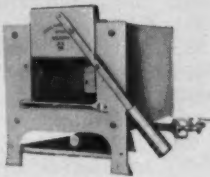
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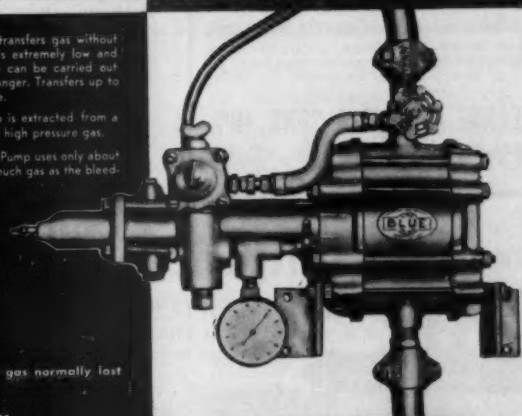
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bate certificates issued by co-ops to members as "patronage dividends" and require that taxes be paid on them. It would require a co-op to determine its taxable income and gross receipts without considering any such refunds or rebates, and to pay taxes at normal rates.

Rep. Thomas B. Curtis (D), Mo., introduced legislation to tax co-op income when it is earned. At present, under the court ruling, a co-op may issue rebate certificates, which may never be redeemed, retaining its profits for working capital or cut prices. The farmer who re-

ceives the certificate does not pay taxes until he actually receives cash, if ever.

This tax loophole has been a particular thorn in the side to private, tax-paying businesses when they compete for customers with co-ops which are principally in the business of selling goods to consumers. These are usually, but not always, farmers. The lack of taxes permits them to cut prices.

Co-op competition is growing rapidly. In the latest figures available, the U. S. Agriculture Department reports that in the fiscal year ending in mid-1957, there were a total of 9872 farm co-ops with 7.7 million members. These co-ops did a net business of \$10.4 billion, an increase of 6.4 per cent over the previous year. Of the total, \$2.1 billion was in supplies sold to farmers and others, an increase of 5 per cent.

Farm supply co-ops—organizations formed primarily to sell to farmers—represent 34 per cent of the total. Petroleum products—L. P. gas, gasoline, oil, and other products—accounted for some \$530 million of the total of goods sold to farmers, second only to feed.

Not all cooperatives are fighting the move to restore tax equity. Sen. Wayne Morse (D.), Ore., recently inserted in the Congressional Record a resolution of North Pacific Grain Growers, Inc. It calls for Congress to "establish clear and concise legislation to once and for all establish the single tax principle for farm cooperatives and establish concise laws to provide that any and all patronage refunds be taxed at face value in the farmer's hands at the date of issue or notification."

House to reach vote on independent TVA loan

Efforts of public power supporters to break away the Tennessee Valley Authority from congressional control are making headway. The House Public Works Committee has approved legislation to permit TVA to sell its own revenue bonds to finance up to \$750 million for expansion of its electric generating facilities.

Neither Congress nor the taxpayers could control future TVA expansion if the legislation becomes law, opponents complain. The bond issuing authority would be left to the discretion of the TVA.

The self-financing plan was proposed after Congress repeatedly refused to appropriate funds for construction of additional TVA power-generating plants. The full hydroelectric power potential of huge TVA area has been tapped for some time. Some steam generating plants have been authorized, but not in recent years.

The plan won Senate approval last year, but it was held up in the conservative House Rules Committee. However, House Speaker Sam Rayburn (D.), Tex., has promised it will reach the floor for a showdown vote this year now that it has won Committee approval.

Public power foes, as well as spokesmen for high power cost areas who complain they lose industry to the TVA areas, are fighting the self-financing measure. Precedent for a new expansion of federal electric power systems free from congressional control would be set if the self-financing plan for TVA is approved, the Chamber of Commerce of the United States contends. Opponents also point out that repayment of the revenue bonds would take priority over repayment of the \$2 billion the taxpayers have already invested in TVA over the years. They also claim that alleged limitations on territorial expansion in the self-financing program would not prevent expansion in up to 25,000 square miles now served by private power utilities.

President Eisenhower supports the revenue bond proposal, but has urged that the government Budget Bureau keep control of the bond issuance. He also wants Congress to specifically limit expansion of the TVA service area to the present territory now served, 80,000 sq miles.

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Getting Rid of Oil and Gum Deposits

HARRY W. BLACK
Chief Chemist
Lone Star Gas Co.

The steadily increasing use of LPG in combustion engines has heightened the importance of eliminating contaminating materials in the gas. Chemists at Lone Star Gas Co. have worked out procedures for tracing oil and gum deposits in LPG to their source. In the article starting on page 123, Harry W. Black, Lone Star's chief chemist, discusses the findings and recommendations for removing the materials. At left, he is shown sampling LPG from a charcoal filter, one of the recommended devices.



Look!

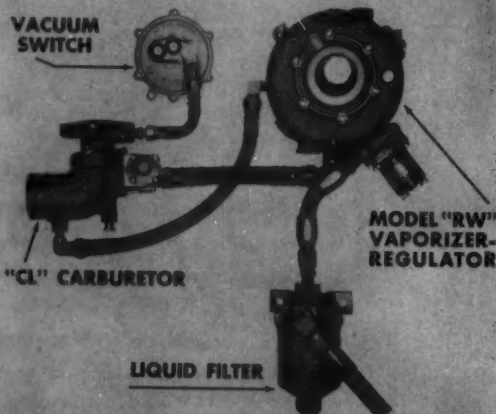
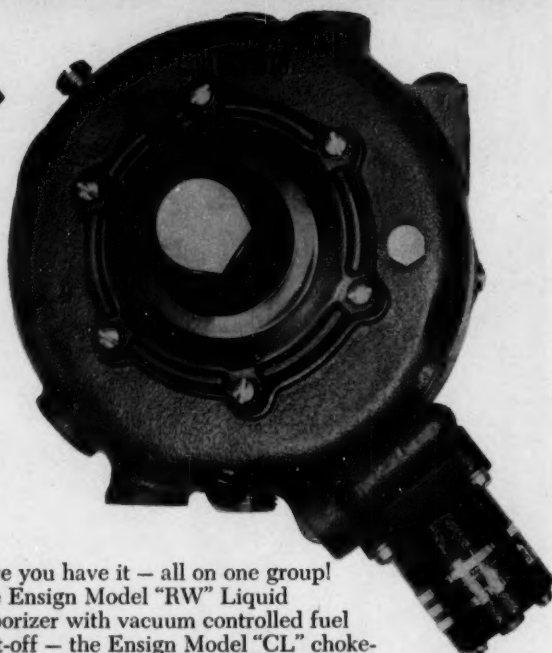
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Getting rid of oil and gum deposits

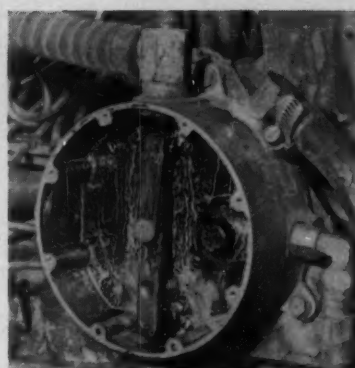
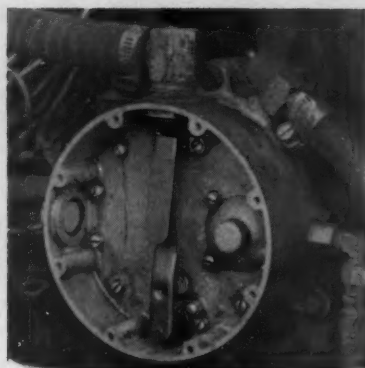
HARRY W. BLACK
Lone Star Gas Co.

EVEN newer than the LPG industry, itself, is the use of LPG as a fuel in combustion engines. As in most infant industries, major problems have been solved first with the less important ones left for later.

Such has largely been the case with nuisance materials left when LPG is vaporized. Such deposits usually are a light, straw-colored "oil" or a dark brown or black semi-solid "gum."

The steadily increasing use of LPG in combustion engines heightens the importance of eliminating contaminating materials. For such use, LPG is normally withdrawn in the liquid state from the bottom of the vehicle's fuel tank. It passes through a filter to remove solids, such as scale, rust, and dirt, then into a combination regulator and vaporizer. This device controls the pressure at which fuel enters the carburetor and supplies heat necessary to convert the liquid into a gas. The non-volatile material normally drops out and accumulates in the low pressure compartment of the regulator, since vaporization is completed here. Sometimes it is swept into the lines connecting the vaporizer to the carburetor.

Sufficient volumes of deposits may cause malfunctions, such as sticking regulator valves, blocking or partially blocking flow of fuel to the engine, altering idle adjustment, etc. We suspect that in many cases it carries into the engine where it may restrict intake manifolds, cause valve trouble, and foul spark plugs. Often large amounts



"Before" and "after" photos of the same vaporizer show the extent to which gum will build up when an activated charcoal filter is not used.

of oil or gum are trapped in vaporizers without causing engine trouble or loss of power, but their very presence may make them scrape goats if malfunctions develop.

For some time, we have collected information and made tests to determine the sources of these contaminants. At first glance it would seem a simple matter to identify them by analytical means.

Experience has proved, however, that they exist as complex mixtures of organic materials accompanied by iron rust on some occasions. Such mixtures are virtually impossible to analyze completely and very tedious to analyze even in part. Analysis is made more difficult by the fact that large samples are seldom available. Further, the deposits are considerably different from one location to another and from time to time. Virtually every sample is slightly to considerably different. Thus, identification of all individual components impossible.

This does not prevent gaining considerable information from a study of the chemical and physical properties of the whole sample or the parts that can be easily separated. Rust is easily separated by diluting the sample with an organic solvent and filtering the solution. Sodium fusion, followed by tests for sulfur, nitrogen, and the halogens, has also proved informative. A bromine number determination is useful in establishing the degree of unsaturation. Engler or other distillation processes are sometimes helpful in comparing the material

(if it is distillable) with its possible sources. Infra red, flame, and ultra violet spectrographic techniques may be helpful short-cut methods of determining properties of the material, but they do not yield much information which cannot be gained by chemical means. Castor oil, often used as a pump lubricant, can be detected qualitatively by saponification and pyrolysis and identification by odor or chemical means of the capryl alcohol (octanol-2) formed.

The most useful technique we have found has been to determine concentration of contaminants at various points in the handling process, drawing inferences from the points at which increases in concentration are noted. A measured volume or weight of LPG is vaporized and the amount of residue determined by weight or volume.

A procedure¹ which we have found adaptable to most cases begins by withdrawing, from a particular point of the system to be tested, enough LPG to fill a one liter graduated cylinder. This should be done in open air, since much of the combustible LPG will vaporize and diffuse during the operation. The sample is allowed to boil off at atmospheric temperature, or at slightly elevated temperature in a water bath if it is desired to accelerate vaporization. The residue is washed out of the graduate with acetone into a Buchner funnel of about 15-ml capacity with an ultra-fine porosity fritted disc. To hasten

¹ This is a somewhat modified form of procedures worked out by the Phillips Petroleum Co. and the Chicago Transit Authority.

filtering, pressure from clean air may be applied to the top of the filter. The filtrate is caught in a weighed beaker and the acetone is allowed to evaporate at room temperature. Then the beaker is heated to 110-120 deg. C for 1 hour, cooled in a desiccator, and re-weighed to calculate the concentration of gum. The weight of the solid material caught in the filter can also be determined if desired, but results will be highly unreliable since it is nearly impossible to remove rust from the graduate quantitatively and just as difficult to get a representative sample of the suspended matter.

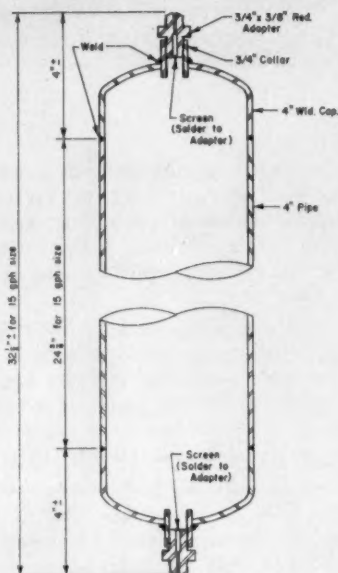
It should be realized that this procedure is only semiquantitative, since the actual amount of sample withdrawn is larger than that measured, due to rapid evaporation while sampling. Actual amounts of sample withdrawn compared to sample obtained will be determined by such variables as the speed of withdrawal, ambient temperature, and composition of LPG. Results should be compared statistically rather than individually, particularly if the differences are small. It would be helpful to weigh the sample, but this is seldom possible. Sampling lines should be made of metal because of the possibility of contaminating the sample if hoses are used.

Our investigations, we believe, have uncovered most of the sources of contamination commonly encountered in the Southwest with LPG produced at natural gasoline plants. However, we may have overlooked some and new ones may be expected in the future as methods and uses change.

Contaminants apparently get into LPG after it leaves the fractionator; i.e., in the process of handling. Over a hundred determinations from primary plant storage tanks showed an average contaminant concentration of 1.2 mg./liter or about one part per million. This is as clean as a product can be expected to be. So all indications from field experience are that there is not enough non-volatile material to cause trouble in LPG as it comes from a properly designed and properly operating fractionator in a natural gasoline plant. After one handling, from the producer's storage tank to the transport tank of a

truck, and one or two days residence in this tank, the average concentration of dissolved contaminant was 5.5 mg./liter. In isolated cases, amazingly high concentrations of contaminants were found along the route from producer to consumer. Generally speaking, the amount of contamination increases at least a little every time the fuel is transferred from one tank to another.

Among the contaminants, known



LPG charcoal filter holder.

or suspected, are: lubricants, odors, packing oil and grease, rust and mill scale, polymerization products and extracts from hoses.

Lubricants are often required in the pumps and valves necessary to handle LPG. All lubricants we have tested are soluble in LPG to at least a limited degree and end up as contaminants. Castor oil, used for pumps, had been a particularly serious offender, but most currently produced pumps are mechanically sealed, eliminating the need for castor oil. Plug valves which require stick lubricants should be replaced by gate or diaphragm valves. The latter, however, can contribute some contamination if the diaphragm is made of a semi-soluble material. Sometimes LPG is moved from one tank to another by connecting a vapor compressor between them. In many compressors, lubricating oil leaks past the piston rings, gets into

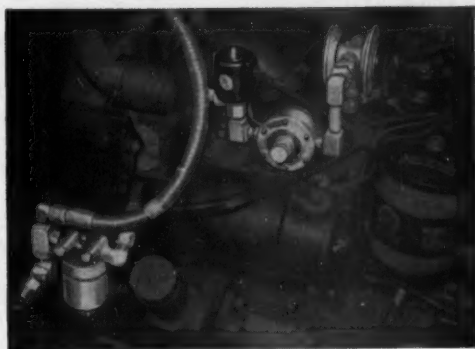
the LPG vapor and is carried into the liquid. Overhauling compressors as soon as oil consumption becomes noticeable will minimize this type of contamination.

Odorants used for LPG contain a wide boiling range of materials. One odorant now removed from the market had a mixture of sulfides and thiophenes dissolved in kerosene. A substantial part of this odorant was non-volatile and left an oil residue when LPG was vaporized. Our experience is that ethyl mercaptan is a satisfactory odorant and will leave no detectable residue if a high purity product is used.

Packing oil and grease, often used to ship such new equipment as pumps, automatic valves, etc., may not be thoroughly removed before installation and may become a contaminant. If no better method of cleaning is available, substantial volumes of LPG should be sent through the equipment after installation is completed. The contaminated LPG should be wasted in a safe manner or used for some purpose where contamination is not objectionable.

Rust and mill scale often coat the inside of new equipment. This is particularly true of tanks, such as tractor and truck tanks. The manufacturer gives them hydrostatic pressure tests and the water is seldom completely removed. If openings are left unplugged during storage, condensation of atmospheric moisture may increase this amount of water, and by the time they are put in service, inside surfaces are quite rusty. Perhaps some corrosion continues after the tanks are in use. At any rate, we have seen cases where rust remained in tanks that had been in service for several years. Rust is not soluble in LPG, but it often exists as such a fine powder that it becomes suspended in agitated LPG. To remove rust and other solids, most mobile units have a fuel line filter, which must be very efficient because particles small enough to stay in suspension are mostly 1 micron or less in diameter.

Polymerization of LPG might cause gum to be formed under certain conditions, or so we suspected in the early stages of our investigation. This theory is based on the common knowledge that polymeri-



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zation often causes gum in gasoline. We found no evidence to support this theory. Our LPG contains less than 1.0 per cent of unsaturated hydrocarbons and polymerization of paraffin hydrocarbons under these conditions is not possible. We had no experience in this area with LPG from cracked gas sources, but it is possible that gum might be formed if appreciable amounts of unsaturates were present. We have experimented with several gum inhibitors of the type used in gasoline motor fuels, but have not found any that are sufficiently volatile for use with LPG.

Extracts from hoses needed in distributing and dispensing LPG were not too suspect because practically all such hoses have synthetic rubber liners which are supposedly unaffected by LPG. We were very much surprised to find gum from an automotive vaporizer contained organic halogen, indicating it came from synthetic rubber. Then, when a sample was taken from the free end of the delivery hose on a newly installed commercial LPG dispensing unit, high concentrations of

gum were also obtained. But when the sample came directly from the tank the concentration was nominal. Samples taken from this delivery hose at intervals of one week showed a steady decline, eventually approaching that found in the tank.

To make certain LPG would extract material from synthetic rubber, we put strips of neoprene and buna-n synthetic rubber in clean, stainless steel containers filled with uncontaminated butane. After three days, we drained the butane and determined the amount of material extracted. It was amazingly high. Neoprene showed an initial extraction rate of 22 mg/sq in./day, while buna-n had a rate of 4 mg/sq in./day. The concentration of neoprene extract in the butane was about 1.5 per cent by weight compared to a buna-n concentration of about 0.15 per cent.

When neoprene and buna-n strips were repeatedly immersed in butane, there was a gradual decline in the extraction rate. Presumably all extractable material will be removed in time. The physical ap-

pearance of the synthetic rubber strips was not altered. The extract from neoprene was a semi-solid gum at room temperature, while buna-n left an oil having about the viscosity of SAE 40 lubricating oil.

Liners from hoses of several manufacturers showed the same properties but some variation in the rate of extraction, particularly on the first contact. One manufacturer submitted samples of neoprene and buna-n with "extractable" and "non-extractable" plasticizers. The latter were considerably better in both cases, but even these showed a fairly high extraction rate. A thiokol synthetic rubber without a plasticizer was the best sample this manufacturer furnished.

In addition to synthetic rubbers, we have tested several flexible or semi-flexible plastic materials including tygon, poly-ethylene, vinylite, nylon, teflon, and compar. The first three were at least as soluble as the best synthetic rubbers. Nylon, teflon, and compar showed no detectable solubility. Compar is in the same price class as the best synthetic rubbers, but is quite soluble in water. It should be satisfactory for use with LPG which is up to specification, but water would ruin it.

In view of the extensive use of synthetic hoses in the LPG industry, not only in distribution facilities, producing plants, and terminals but also for fuel lines on vehicles, tractors, and construction equipment, we feel that the material extracted from them is one of the major contributors to the gum problem. Hence, it is highly desirable to find a comparatively inexpensive hose liner that is completely insoluble in LPG.

Contamination of LPG with gum-like materials can undoubtedly be reduced, but probably will never be entirely eliminated. It is therefore desirable to remove all foreign material from LPG immediately before vaporization or consumption. Since gum is soluble in LPG, an ordinary mechanical filter will not remove it.

We have experimented with activated charcoal filters for removal of oil and gum from liquid butane and propane by adsorption. Field results are excellent, and seem to

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*The name assures you of top
quality materials and workmanship*

offer a practical and economical solution.

Filters holding 6¼ lb of activated charcoal were inserted in the liquid fuel lines of large transport trucks between motor fuel tanks and vaporizers. Numerous checks before and after the filters showed that they materially reduced the gum content.

The trucks operated for eight months or longer with only minute deposits of gum in the regulators, while trucks operating under parallel conditions with no filters had large deposits. Average concentration in the fuel tanks ahead of the charcoal adsorber was 5.5 milligrams/liter. With this concentration, about 41,000 gal. of fuel passed through the charcoal before it became saturated to the point where the filter wasn't effective.

The possible removal of odorant by the charcoal does not appear to be a major deterrent to its use. We found no decrease in odor intensity after the filter had been in service one week. Probably, the filter material could be pre-saturated with odorant to insure no decrease from the start.

Our experience shows that the design and mounting of vaporizers is all important. Some vaporizers can handle teacups of oil without engine malfunction while others will be upset by only a milliliter or so. Regulator valves which operate part of the time in a nearly closed position are subject to sticking if any gummy substance is present.

A common practice is to install the vaporizer in such a position that the oil will drain downward to the outlet and not collect in the low pressure compartment. This system is usually successful in preventing trouble in the vaporizer itself, but we suspect it may be damaging to the engine in that the oil may carbon valves and foul spark plugs.

Ideally, the vaporizer should be so constructed that any oil will drain into a sump or drip out of the flow stream to the carburetor. A drain cock at the bottom of the sump would aid removal. Constructing the vaporizer so the low pressure chamber may be opened and cleaned out without removing it from the vehicle greatly facilitates maintenance when the material col-

lected is too solid to drain out of the flow stream. Naphtha and kerosene are good solvents to clean gum and oil out of equipment.

Where used as fuel for burners, vaporized LPG is usually withdrawn from the upper portion of a comparatively large storage tank. Since vaporization takes place in the tank, most of the non-volatile material remains there and each re-filling adds to the amount of non-volatile material. It is not at all uncommon for the contaminating material to reach a concentration of

1 per cent or more in such tanks after years of service. Use of a "foul" liquid of this sort for internal combustion engine fuel is bound to result in considerable trouble in carburetion equipment.

LPG has definite advantages over gasoline and diesel oil. A concerted effort should be made by the industry to enhance these advantages. Using the methods suggested here and better ones yet to be found, we could materially reduce the spasmodic troubles caused by LPG contamination. ■

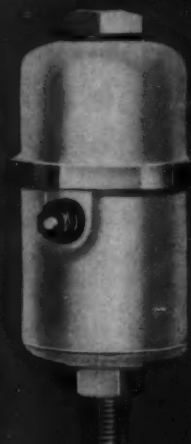
NOW!
the revolutionary
new
BEAM
MODEL FL-417

Filterlock

A Compact,
Efficient Combination of
**LP-GAS FILTER and
SOLENOID VALVE**

**CHECK THESE
ADVANTAGES:**

- Filter or Solenoid may be Disassembled Separately
- Sintered Bronze Filtering Element Traps Particles as small as .001
- Available 6, 12 or 24 Volt D.C.
- Operates on 9 Watts



\$19.95

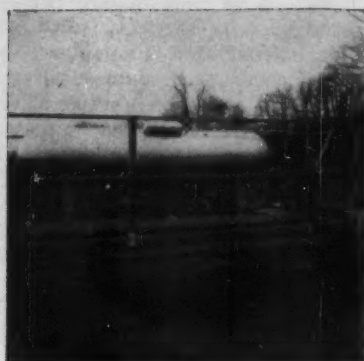
A REAL
TIME SAVER —
SPACE SAVER —
MONEY SAVER —

Now, for the first time, the normally bulky filter and solenoid are contained in a single unit only 4 1/2" in diameter.

FOR COMPLETE INFORMATION SEE YOUR
LOCAL DISTRIBUTOR OR WRITE:

BEAM PRODUCTS CORP. CO.

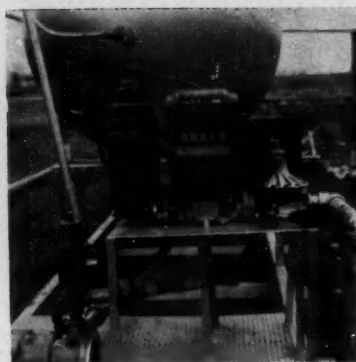
1000 Broadway Street • Glendale, CA 91201
Los Angeles 45, California



Delaware Truck Center's 1000 gal. propane tank nestles in enclosure on prefab base. Trucks pull up in foreground.



A propane-refrigerated truck from Florida is refueled at the Center, located on the DuPont Highway.



Close-up of the tank installation shows the direct reading Neptune meter that tells the trucker how much he's bought.

Delaware gets first round-the-clock refueling station for truckers

Delaware's first 24-hour-a-day propane refueling station was installed recently by SchagrinGas Co., Middletown, Del.

Site of the installation was the

MILTON LEVINSON
SchagrinGas Co.

Delaware Truck Center, a huge service station on the DuPont Highway, just a short distance from the intersection of routes 13 and 40. For years a mecca for truckers, the center was completely equipped with facilities for: refueling gasoline and diesel oil, repairing, icing, sleeping — everything but refueling propane.

Many trucks going through the area use propane for fuel, so they had to plan not to run low on fuel in Delaware at night because that would mean laying over until an LPG dealer opened the next day!

Two of the Truck Center's neigh-

bors, Colonial Trucking Co., and V. J. Tovatt, are freight companies with a large number of propane-refrigerated trucks. Colonial alone has over 75 such units.

When Warren Petroleum Corp. representative Jim Barrick brought the situation to the attention of SchagrinGas, the firm installed a 1000 gal. Pressed Steel tank. Equipped with a Corken Model 10 pump with a 1½ hp motor, the unit was mounted on a prefab base. A Neptune direct reading meter records sales.

Now several months old, the installation has had good business with the promise of much larger gallonage in the future. SchagrinGas hopes that it will be the first of many.



NOW!

**Rebuilt Exchange
ON ENSIGN MODEL
"R" REGULATORS
\$19.50 Net!!!**

Model "R" Regulators Rebuilt to
FACTORY SPECIFICATIONS with
GENUINE FACTORY PARTS

Backed by our 20 years of L.P.G. Carburetion experience ELLIS MANIFOLD CORPORATION now offers you the following exchange prices.

ENSIGN MODEL "R" # 4893	\$19.50 NET
ENSIGN MODEL "R" # 8074	22.50 NET
ENSIGN MODEL "R" # 8391	24.50 NET
ENSIGN MODEL "R" # 8392	25.60 NET

(Exchanges on other makes available soon)

Dig those old Model "R"s out of your shop and send them to us, we'll exchange them with rebuilt ALMOST as good as NEW and you'll have something to SELL!!!!

All Exchanges Fully Guaranteed!!!!

TERMS: C.O.D. until credit has been established. Naturally, we must charge for broken or damaged parts.

Ellis Manifold Corp.

(Mfr. of Ellis Bu-Power "COLD" Manifolds)

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Phone ANgelus 2-4162



Parkhill Nozzles lock on and open fuel valves in 3 seconds . . . On release, automatically vent away from hands.

Two sizes: Domestic 7" Truck 11" overall.

Parkhill

Safety Hose Nozzles

1. Long Life
2. Steel-Ductile Iron
3. Easy to Repair
4. Safe

Write for Information

PARKHILL-WADE

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DISPLAY CLASSIFIED

\$12.00 a column inch per issue. Choice of 18, 14, 12, 10 pt. display type for headings. Set with 1 pt. border. Maximum ad size 3". No cuts permitted. Publisher will set ad for maximum effect in space purchased.

UNDISPLAYED CLASSIFIED 15¢ a word. Set in 6 pt. type without border. \$3.00 minimum charge per insertion. If Blind Box number care of B-P News is used, count as five words.

POSITION WANTED. Undisplayed rate is one half of above rate, payable in advance.

DISCOUNT OF 10% if full payment is made in advance for four consecutive insertions of undisplayed ads.

SITUATIONS WANTED

A JUNE GRADUATE OF THE GAS-FUEL Department, Southern Technical Institute, unit of Georgia Tech, with 10 years' previous experience, desires a position in technical or engineering type work. Service obligation fulfilled. Married. Will relocate. Write Box 262, Chamblee, Georgia.

STEADY EMPLOYMENT WITH GOING L.P. Gas Company. Have nine (9) years' experience as bulk delivery, service man and installations. Some carebution and management. Prefer mountain or coastal states. More information on request. Reply Box 23, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

WELL QUALIFIED MANAGER AND Salesman seeks position as manager in L. P. G. gas business. Will exchange references. Reply Box 26, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

HELP WANTED

HELP WANTED: EXPERIENCED MAN IN LPG bottles and bulk. Agency Agreement. Better opportunity if has railroad siding and spur. RESTRICTED TERRITORIES. WE FURNISH EVERYTHING. Tank car material available. Ross Refineries Inc., Belleville, Ill.

REPRESENTATIVE WANTED

We have territories open with exclusive rights for individuals or concerns to sell the Max Slevort line of L-P gas tools, such as different types of soldering irons to be used by plumbers, sheet metal men, electricians, refrigerator repairmen, etc. Special burners for brazing and soldering, paint burners, and several other items to be used with propane gas. For further information, write REXO-THERM, Inc., P. O. Box 1051, Aurora, Illinois.

UNLIMITED

Employment Opportunities

Servicemen—Installation Men—
Salesmen—Bulk Plant Managers

In our fast growing company we have many employment situations available for those with some experience in the LP-Gas Industry. Opportunities for advancement are constantly developing. We have over 90 districts and operate in the east coast states from Maine to Florida, and in Ohio, Kentucky and Indiana. If you have experience in service, installation, selling or bulk plant management send me your detailed employment history, and state the general area in which you would be interested in being assigned.

ROBERT GANTERT,
Personnel Manager

SUBURBAN PROPANE GAS CORPORATION
WHIPPANY, N. J.

HELP WANTED—Cont.

LPG RETAIL BRANCH MANAGERS WANTED by progressive chain of LPG and appliance sales outlets on West Coast. Men chosen must have proven sales, collection and technical background. Good salary with fringe benefits. Write Box 24, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

BUSINESS OPPORTUNITIES WANTED

WANTED TO BUY: PROPANE PLANTS Upper Mid-West, also used tanks 100# to 30,000 gallon size. Reply Box 99, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

BUSINESS OPPORTUNITIES OFFERED

LPG BULK PLANTS. WE SPECIALIZE in selling petroleum properties throughout Midwest. Have number desirable plants for sale. OLF RRODD, PETROLEUM MARKETERS, 605 Produce Bank Bldg., Minneapolis, Minnesota.

DISTRIBUTORS WANTED. FISK PROPANE TANK TRAILER distributorship available. East and S. Eastern States, Southern and North Central (West) States. Reply by letter only. Trade reference required. Fisk Trailer Sales, P. O. Box #3093, Madison 4, Wisconsin.

LP GAS BUSINESS FOR SALE in southern Missouri; over 600 customers; two trucks. 36,000 gallon storage; a real moneymaker. \$40,000 will sell for \$20,000 down. Reply Box 25, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

FOR SALE — TRUCKS - TRAILERS

USED PROPANE DELIVERY TRUCKS. 1200 GALLONS W.C. Presently in use and being replaced with larger units. United Petroleum Gas Co., 4820 Excelsior Blvd., Minneapolis 16, Minnesota.

FOR SALE: USED PROPANE TRANSPORT. 6700 water capacity twin barrel. Perfect condition. New drums and lining. complete new torsion suspension and good rubber. Legal in all Western States. Will finance to right party. \$4750.00. Utah Colorado Gas Company, Box 348, Vernal, Utah.

USED PROPANE DELIVERY TRUCKS. 1191 W.G. 1953 Ford F 600 . . . 1656 W.G. 1955 Ford F700 . . . Presently in use. Contact Service Gas Inc., P. O. Box 189, Morris, Illinois.

FOR SALE: 2 PROPANE TRANSPORTS. 5600 W. Gallons, \$3500.00 and \$3200.00. Blockton Oil Co., Blockton, Iowa.

TRANSPORTS: SINGLE OR TWIN barrel; new or used; for lease, or sale on budget or rental sale plan. If you want maximum payload, with all of the latest equipment engineered to fit your truck, roads, and your hauling problem, get the

LMC PAYLOADER

Contact Lubbock Machine & Supply Co., Inc., Drawer 1509, Lubbock, Texas

FOR SALE—TRUCKS - TRAILERS - Cont.

HAUL MORE PROPANE AND LESS STEEL! LOAD AND UNLOAD FASTER! Save the annual Federal tax on trucks that weigh more than 13,000 lbs! Users praise the Nor-Tex 2500 WG Single Barrel Payload Special of 202B X-rayed material and stress relieved. Weighs only 12,890 lbs. completely equipped with High Flow Plumbing, Meter, Hose, Hose Reel, Fire Extinguisher and mounted on cab-forward truck with 108" cab to axle dimension. Increased capacity pump boosts deliveries to 90 GPM. Vapor manifold permits easy simultaneous loading and unloading of twin tanks with either compressor or liquid pump. These popular, carefully engineered and sleek designed Nor-Tex Single and Twin units are produced in four attractive models: The "Standard"—the "Custom"—the payload "Special" and the "DeLuxe." That's not all! Twin units, up to 2000 WG, are mounted on 85" cab to axle. Start hauling more gas and less steel. Do it profitably and in much less time. Phone, wire or write for prices now. NORTH TEXAS TANK CO., Denton, Texas. Phone DUport 2-5416.

TRINITY BULK TRUCK UNITS

In stock, ready for immediate delivery. Buy early and avoid steel price increases.

Write, wire or phone RAY REEDY
TRINITY STEEL CO.
Dallas, Texas
Phone: FL-7-3961

USED 100# CYLINDER TRUCK

International L-180. Special all steel body, 2 side openings, Anthony 1 1/2 ton lift gate, 9:00 x 20 tires. Complete motor overhaul less than 10,000 miles. Capacity: 71 cylinders.

HARTHMORE CORPORATION

P. O. Box 6 Vincennes, Indiana

WE SAVE YOU MONEY

LOOK at this typical SPECIAL

BRAND NEW 1959 Chev. 2 ton with 1800 gal. twin propane tanks, PIPED COMPLETE with Viking pump, Neptune Printer Meter, 20# fire ext., 75' each filler & vapor hoses, ICC lights, full size rear cabinet & controls, READY TO USE—ONLY—

\$636.00 Down and 36 payments of \$181.45 including interest.

You SAVE over \$1,800.00 by buying instead of leasing. Other sizes (1400-2200 WG) & other makes new trucks (at FLEET PRICES) available. WE TRADE. We have USED TRUCKS & TANKS also. Call me anytime.

Preston Grace

WHITE RIVER DISTRIBUTORS
Ph. 570—Safesville, Ark.

CLASSIFIED Advertising



FOR SALE—TRUCKS - TRAILERS - Cont.

NEED A NEW OR USED PROPANE BULK TRUCK?

Why don't you call a man who KNOWS trucks, like to TRADE, makes quick delivery, has EASY TERMS, appreciates your business, and SAVES YOU MONEY. All sizes in stock. Hundreds of SATISFIED CUSTOMERS the World Over.

Freston Gross
WHITE RIVER DISTRIBUTORS
P.O. 570—Batesville, Ark.

DELIVERY UNITS: SINGLE OR
Twin Barrel. Our prices are competitive. We invite comparison between the equipment and price on our units with any competitive units. We believe we can give you the highest payoffs per pound of gross vehicle weight. Write, wire, or phone.
Lubbock Machine & Supply Co., Inc.
Drawer 1589, Lubbock, Texas.

TRADE WITH A TRADER! NEW & USED PROPANE TRUCKS

I'll trade with you on the phone! My ONE MAN SALES FORCE (myself) SAVES you the usual 10% sales commission, eliminates any mix-up on order, delivery date, financing, etc., yet this year, as in every year for past 10 years, I SELL MORE tank trucks than anyone else. If you have a trade-in, send me photo and description. Used and NEW units (1400-2200 WG) in stock for delivery NOW. EASY TERMS—(10% Down—36 Mos. on balance—I carry my own paper). DON'T BUY OR LEASE a unit until you CALL ME—Day or night. WHO AM I?

Freston Gross—Ph. 570
WHITE RIVER DISTRIBUTORS
Batesville, Arkansas

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STORAGE TANKS

Immediate Delivery
350# WP Propane Storage Tanks, 8,550 WG through 12,450 WG; 72" diameter; 10,170 WG through 16,900 WG; 84" diameter; 16,500 WG through 30,500 WG, 90" diameter. Ready for immediate delivery, our truck fleet. ORDER EARLY and AVOID STEEL INCREASE.
Write, wire or phone RAY REEDY
TRINITY STEEL CO.
DALLAS, TEXAS
Phone: FL-7-3961.

WE'LL HELP YOU (Financing and Installation)

PROPANE STORAGE PLANTS
... 6,000-12,000-18,000 and 30,000 any location except West Coast. We'll sell, lease or rent. Immediate action! Remember, we'll finance for you. If interested

Write Box 9, BUTANE-PROPANE News
198 So. Alvarado St., Los Angeles 57, Calif

FOR SALE—TANKS-CYLS—Cont.

FOR SALE: USED 1144 GALLON W.C. export type skid tanks equipped with extra heavy protective guard. Excellent condition. 1 to 30 available. Reply to Mutual Liquid Gas Corp., Inc., P. O. Box 392, Gardena, Calif.

SKID TANKS

— IN STOCK NOW —

3000 gallon size built especially rugged for oil field use. Write, wire or phone

Lubbock Machine & Supply Co., Inc.
P. O. Drawer 1589
Lubbock, Texas

PROPANE GAS SYSTEMS

"Listed by Underwriters' Laboratories, Inc." If you use as many as one load of tanks per year, it will pay you to contact us. Distribution throughout the Mid-West and Southern states.

LOWRY TMS COMPANY

Quality Steel Products Division, Cleveland, Miss.

FOR RENT or LEASE

6,000 to 18,000 GALLON PROPANE STORAGE for rent or lease. Reply Super Petroleum Corp., Box 776, Tulsa, Oklahoma.

FOR SALE—MISCELLANEOUS

FOR SALE—IMMEDIATE DELIVERY! Eureka Smokehouse Burner Assemblies! For meat smoke houses using bottled gas. Completely automatic. Clean filtered smoke. Distributes heat uniformly. Low gas consumption. Automatic temperature and pilot control. Less product shrinkage. Easily installed. Write for descriptive pamphlet. Eureka Equipment Company, P.O. Box 396, Beloit, Wisconsin.

DECALS MADE FOR TRUCKS, EQUIPMENT. Small or large quantities. Catalog free. Mathews Co., 827 S. Harvey, Oak Park, Ill.

EQUIPMENT SALE—20% Carburetion, Lift Truck Cylinders, E. H. Steel and brass fittings to 4" etc. For list, write Box 27, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

FOR SALE: 1952 PROPANE Transport-Trailer-Columbian 6,017 w.g., good condition (will deliver up to 500 mi.), \$3,750.00. Used Propane skid tanks from 3,000 to 5,000 gallons. Several tool bar equipped with ANHYDROUS AMMONIA applicators with John Blue Pumps. Also, vapor pumps. B. I. Whitlock, Stafford, Kansas. Phone 326.

SERVEL GAS REFRIGERATORS W600A and BN600A

We made a lucky buy—

GUARANTEED Servels—Used, good condition and complete.

Special low price for this month only. Very low delivery cost on 30 or more—anywhere in the U.S. All units guaranteed. Test them before you pay. Send for pictures and full information NOW.

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Phone Flushing 7-6161

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DIXIE SEMI-LOCK HOODS, ALUMINUM and Aluminum coated steel. Ball bracket or free standing. GUARANTEED mechanically for life. \$3.00 up. Dixie Manufacturing Company, Elizabethtown, Kentucky, Box 65. Phone Collect RO-5-9229.

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Some with top freezers
Send for Prices

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REgent 9-1139 Est'd 1918

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WANTED TO BUY: USED TWIN barrel Propane transport of approx. 6600 gallon Water Capacity. Please give complete information in first letter. A-One Butane, 4901 No. Broadway, Wichita, Kansas.

WANTED: USED BLIMP TRANSPORT in excellent condition only, legal for Delaware, Pennsylvania, Maryland. Approximately 7000 Net. Propane. SchagrinGAS Co., Middletown, Del. FR 8-2000.

SEMI-TRAILERS WANTED—SEVERAL used Semi-Trailers 4000 U.S.W.G. and up. Send price and particulars to Box 16, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

WANTED—30,000 GALLON USED tanks; will consider 18,000 gallon also. Reply to Midwest Bottle Gas Co., 119 North 3rd Street, LaCrosse, Wisconsin.

WANTED TO BUY: USED 2000 to 5000 WG Propane Tanks, state price and location. Also wanted small LPG bottle gas plants with railroad siding with tank car deliveries, tank car material available. Ross Refineries, Inc., Belleville, Ill.

WANTED TO BUY: USED 1800 to 2200 propane gas delivery truck, in good workable condition, ready to deliver. State age, equipment, location and price in first letter. Reply Box 22, BUTANE-PROPANE News, 198 So. Alvarado St., Los Angeles 57, Calif.

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A practical course of study for men engaged in service, installation and fuel delivery, and others interested in the basic fundamentals of LP-Gas.

Earle A. Clifford

INDUSTRY TRAINING SCHOOL
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BUSINESS RECORD FORMS. ALL-WEATHER EZE-SNAP delivery invoices, for use when making LP gas metered truck deliveries. 1000 sets (3 part) imprinted with name, address and telephone. \$18.00 per 1000 sets. Advise make of meter. DEGREE DAY SYSTEMS, Dept. BP WOODSIDE 77, L. I., N. Y.

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Westfield, N. J.

LET MY 30 YEARS OF PRACTICAL "LP" experience assure you maximum profits. Equipment revisions, property evaluations for sales or refinancing, and assistance on legal suits also supplied. Floyd F. Campbell, Management Counselor, 821 Crofton Ave., Webster Groves, Mo.

PROPANE GAS PLANTS

ANHYDROUS AMMONIA PLANTS

Designed and installed
PEACOCK CORPORATION
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Have your agent write us about our Complete and Comprehensive Coverage for Adequate Limits of Liability at Reasonable and Normal Rates with Specialized Safety Engineering and Claim Service. Available only in Alabama, Arkansas, Arizona, Florida, Georgia, Kansas, Louisiana, Mississippi, New Mexico, Oklahoma and Texas.

PAN AMERICAN FIRE &
CASUALTY COMPANY
Earl W. Gammage, President
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The **KNOW-HOW** **BOOK** for LPG

- DEALERS
- SALESMEN
- SERVICEMEN

The Bottled Gas Manual has been accepted by many companies as the quickest way to acquaint new sales and service men with typical bottle gas problems. This 352 page (24 chapter) text book brings practical "working" facts to your entire staff in non-technical language. Nearly 10,000 copies in use.

\$4.00 per copy

We pay postage on orders accompanied by check or money order. In California add 4% for sales tax.

Butane-Propane News
198 S. Alvarado Street
Los Angeles

CALENDAR

Coming events in the Industry

1959

May 3-6—Liquefied Petroleum Gas Association 28th Annual National Convention and Trade Show—Conrad Hilton Hotel, Chicago.

May 4-6—National Tank Truck Carriers Inc. Annual Convention and Tank Truck Equipment Show—Shoreham Hotel, Washington, D. C.

May 14-23—International Petroleum Exposition—Tulsa, Okla.

May 20-22—Management Course Sponsored by Florida LPGA—University of Florida, Gainesville, Fla.

May 25-26—Montana-Wyoming LPGA Joint Convention—Northern Hotel, Billings, Mont.

May 25-28—Midwest L. P. Gas Engine School—Iowa State College, Ames, Iowa.

May 26—Maryland LPGA Annual Convention—Lord Baltimore Hotel, Baltimore, Md.

May 30-June 5—5th World Petroleum Congress—Caliseum, New York, N. Y.

June 3-5—Oklahoma LPGA Carburetion School—Oklahoma State University, Stillwater, Okla.

June 7-8—Butane-Propane Institute of Louisiana Convention—Belmont Motor Hotel, Baton Rouge, La.

June 7-9—Northwest District LPGA Convention—Portland, Ore.

June 7-9—Tennessee LPGA Annual Convention—Gatlinburg, Tenn.

June 8-10—Missouri LPGA and Illinois LPGA Joint Convention and Trade Show—Known as the Mo-Ill L. P. Gas Exposition—Sheraton-Jefferson Hotel, St. Louis, Mo.

June 14-16—Colorado LPGA Convention—Colorado Hotel, Glenwood Springs, Colo.

June 14-16—Arkansas LPGA Annual Convention.

June 14-16—Gas Industry's First National Public Relations Conference—

All associations are invited to send in dates of their forthcoming meetings for this calendar.

Sponsored by the American Gas Association and the Independent Natural Gas Association of America—Edge-water Beach Hotel, Chicago, Ill.

June 22-23—Minnesota LPGA Summer Convention—Madden Lodge, Gull Lake, Brainerd, Minn.

June 24-26—Texas Butane Dealers Association Convention and L. P. Gas Market—Adolphus Hotel, Dallas, Texas.

August 2-4—Kentucky LPGA Annual Convention and Trade Show—Kentucky Hotel, Louisville, Ky.

August 2-4—Alabama LPGA Annual Convention—Birmingham, Ala.

August 3-5—Oklahoma L. P. Gas Service School—University of Oklahoma, Norman, Okla.

August 9-14—L. P. Gas Service and Carburetion Conference—Sponsored by the Florida LPGA—University of Florida, Gainesville, Fla.

August 16-18—Nevada, Idaho, Utah—Joint Convention and Trade Show—Holiday Hotel, Reno, Nev.

September 13-15—North Carolina LPGA Annual Meeting and Convention—Sir Walter Raleigh Hotel, Raleigh, N. C.

September 17—Pennsylvania LPGA Convention—Cocoa Inn, Hershey, Pa.

September 18-19—Florida LPGA Annual Convention—Golden Gate Hotel, Miami Beach, Fla.

October 4-6—Oklahoma LPGA Convention—Biltmore Hotel, Oklahoma City, Okla.

October 5-7—American Gas Association 41st Annual Convention—Conrad Hilton Hotel, Chicago, Ill.

October 8-9—California Natural Gasoline Association 34th Annual Fall Meeting—Huntington-Sheraton Hotel, Pasadena, Calif.

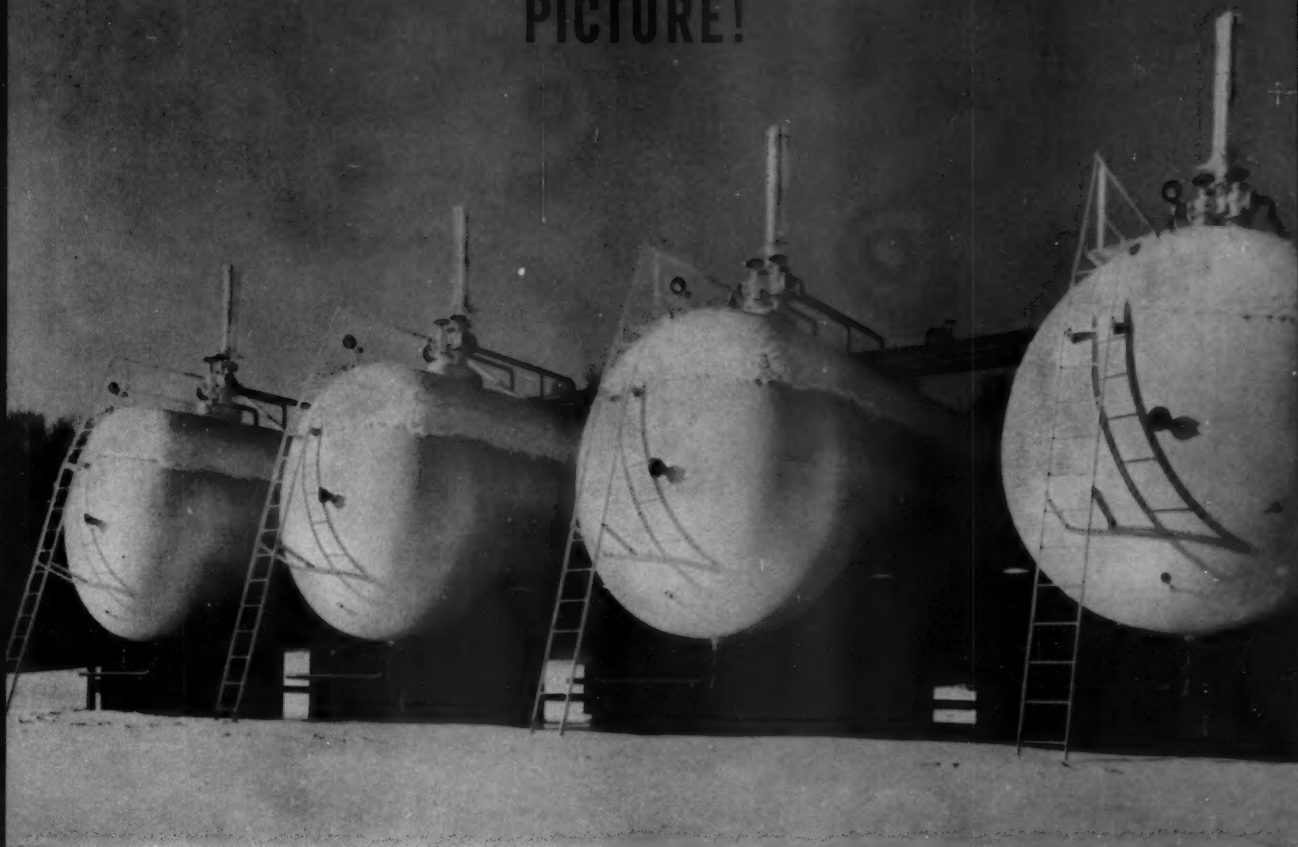
October 12-14—Northeast Regional LPGA Convention and Trade Show—Sheraton-Park Hotel, Washington, D. C.

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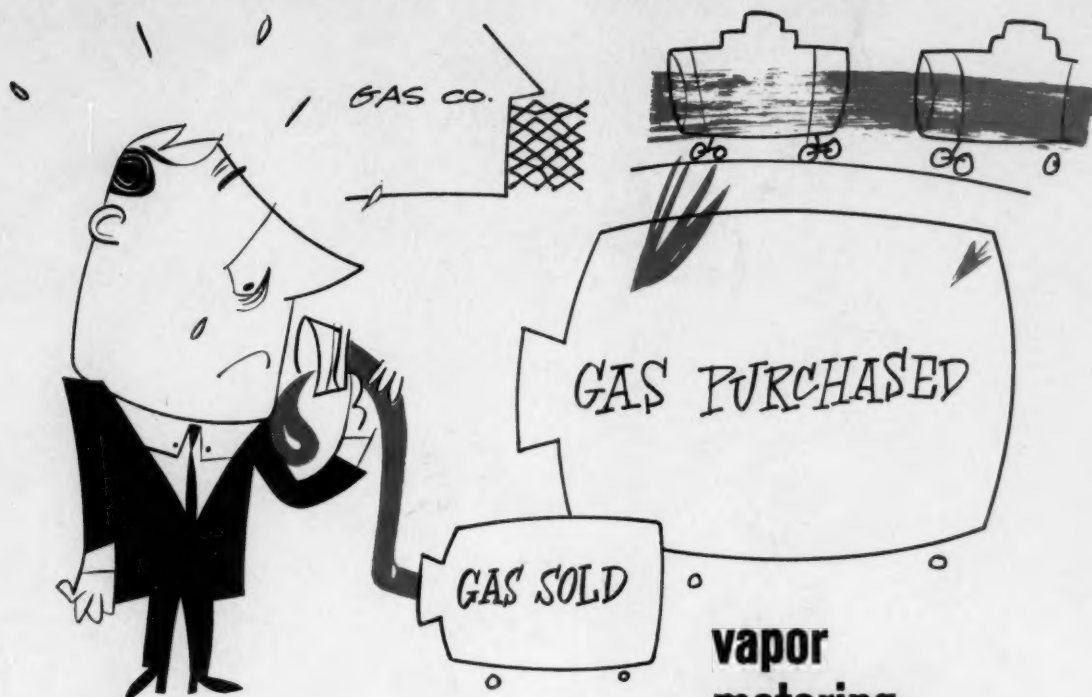
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